Public Utilities

Volume 64 No. 11 November 19, 1959

THE LAW OF GOVERNMENT INTERVENTION
By John D. Garwood

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Area Development by Utilities—Southeast, Pennsylvania, New Jersey, and Michigan
By C. E. Wright

« »

The Importance of Utility—Highway Liaison
By Sam Houston

« »

A Capital City Transit Survey Revealed

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Public Utilities
FORTNIGHTLY

VOLUME 64 NOVEMBER 19, 1959 NUMBER 11

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Area Development by Utilities—Southeast, Pennsylvania, New Jersey, and Michigan *C. E. Wright* 834
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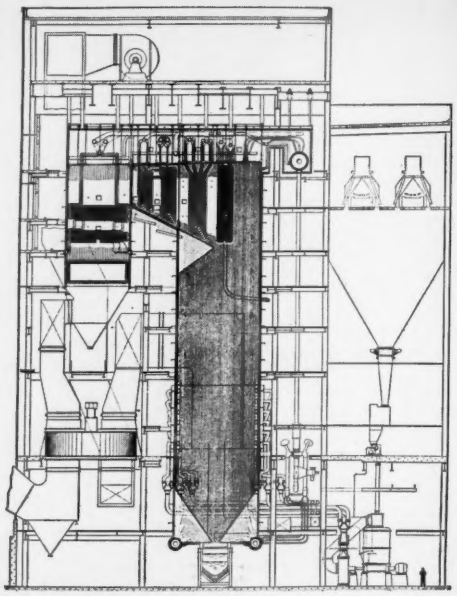
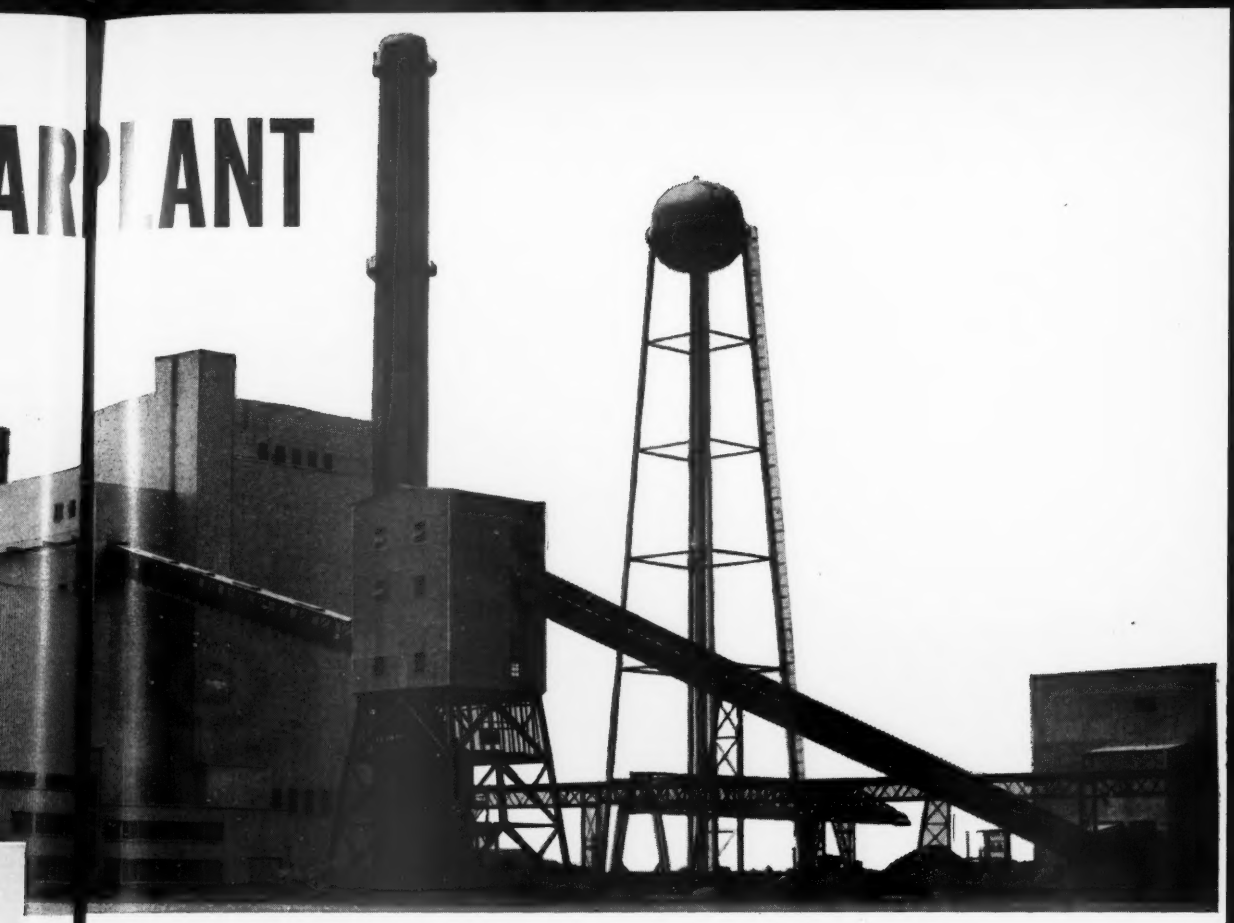


This C-E Unit is now in service at the Dan E. Karn Plant. It is of the controlled circulation, radiant reheat type with twin furnace arrangement. The reheater section is located between the primary and secondary superheater surfaces. An economizer section is located below the primary superheater in the rear pass and regenerative type air heaters follow the economizer surface. This boiler is pulverized coal fired using bowl mills and tilting, tangential burners.



Consumers Power Company recently put into operation Unit No. 1 at its new Dan E. Karn Plant located in Essexville, Michigan, on Saginaw Bay. This first Karn unit, rated at 265,000 kilowatts, represents a departure for Consumers Power Company from tandem-compound machines to the cross-compound type. Employing a throttle pressure of 2400 psig at 1050 F, reheated to 1050 F, this unit is expected to be the most efficient producer of power on the entire system. Commonwealth Associates, Inc. are the consulting engineers.

The Karn Plant is located close to the company's present John C. Weadock Plant for reasons of economy associated with a variety of factors, including such importantly related ones as coal delivery and coal handling, proximity to important load centers, availability of line exits, abundant cooling water and coordinated plant supervision.

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Pages with the Editors

JOHN D. GARWOOD

DURING his recent visit to the United States which excited so much publicity, if not controversy, the Russian Premier, Nikita Khrushchev, made one observation which will be worth while remembering. That was when some of those officials who were charged with the duty of being hosts directed Khrushchev's attention to a typical traffic jam in San Francisco. Perhaps it was expected that the head of the Russian state would be awed by the sight of tens of thousands of automobiles owned and operated by ordinary individual American citizens as compared with the meager distribution of automobiles in Soviet Russia.

BUT while the per capita distribution of automobiles in Russia may be infinitesimal, compared with the routine one- and two-car family experience in the United States, Khrushchev put his finger on a vulnerable spot as he watched the long lines of frustrated automobile drivers waiting for traffic to move. He noted the typical average of a little more than one passenger per car and said frankly, "What a waste."

IT is indeed a waste of steel, of concrete highways, and of other strategic materials essential to modern transportation, to allow a concentration of such a large number of nearly empty automobiles trying to occupy the same space at the same time and getting nowhere. What does it profit our highly vaunted modern American society whether the horsepower which goes under the hood is in the order of 3 or 30 or 300, when the vehicle itself must stand still waiting for red lights to change or crawl at a pace which any self-respecting horse would have scorned fifty years ago when grandpa took his family out in the buggy? Is this progress?

GRANTED the American motorist is not always paralyzed by traffic jams. The fact is that concentration on making and selling more cars has outrun our ability to provide highways on which they can operate in large numbers at the same time during rush hours. To sate the appetite of the American motorist for more highways at public expense, and upon which he may drive or park from 60 to 100 square feet of private automobile equipment, have we singularly neglected mass transportation facilities?

WE have torn down our elevated railways in our large cities as eyesores, but we have replaced them with nothing but more surface traffic. Mass transportation in our cities is caught in the paralysis of traffic jams mainly caused by private automobiles in rush hours. On the other hand common carrier facilities between cities are trying to get out of the passenger business because competition from the private automobiles and because other transportation has made it more unprofitable.

WE do not relish, in this free country of ours, the idea of imposing any government restriction on the traditional right of the individual to buy and operate a private automobile, but what else is in store for us when city traffic becomes worse with increasing population of both people and automobiles? Do we have the physical space much less money to provide

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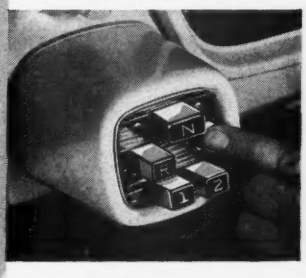

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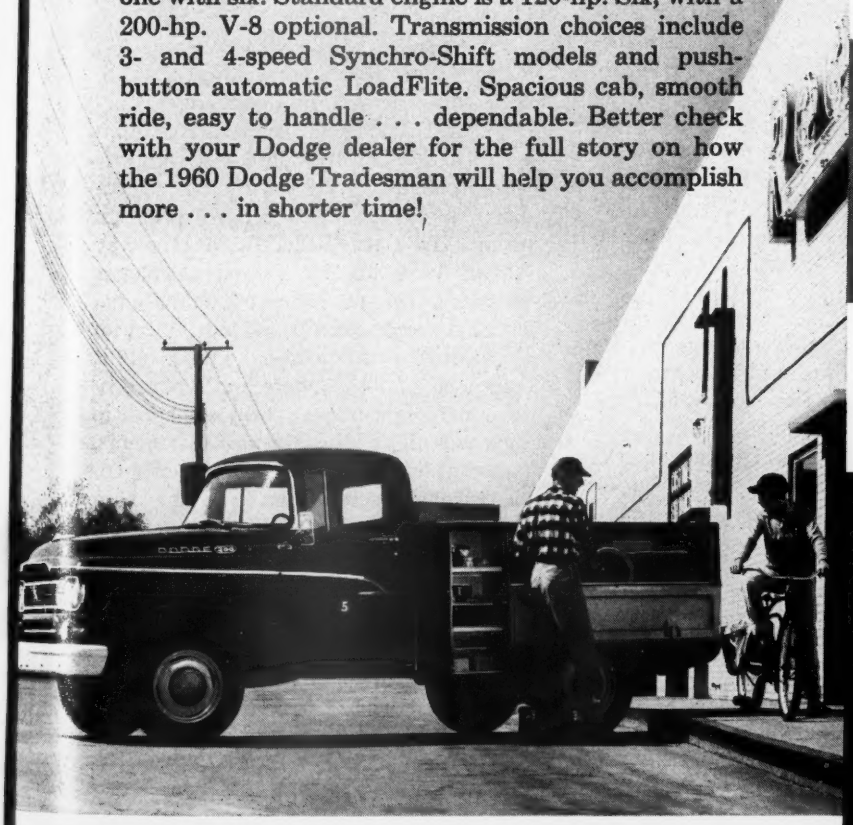

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the square miles of highways, freeways, and expressways needed to carry this load? In an authoritarian country such as the Communists operate, it is an easy matter to solve the problem by restrictive laws and regulations. But how to adjust to these interwoven problems without sacrificing individual freedom in a democratic state is a puzzle likely to engage the attention of our best minds for years to come.

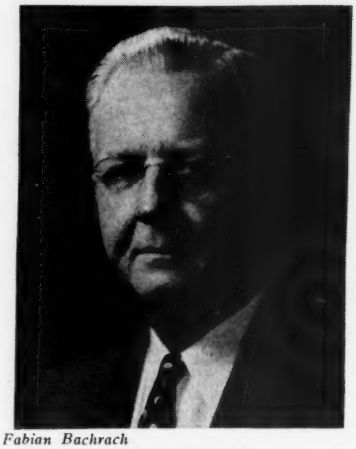
THE trouble with government intervention in economic operations generally is the danger of aggravating the problem instead of solving it. Such at least is the fear expressed by the author of the opening article in this issue dealing with the Law of Government Intervention. Professor of Economics JOHN D. GARWOOD of Fort Hays Kansas State College has written on what he calls "The Law of Government Intervention." Using the uranium industry as a case example, he traces what he believes to be the inevitable consequences of government price intervention which has apparently caused more difficulties in the end than were found in the beginning. DR. GARWOOD is a graduate (MA) of the University of Wisconsin and the University of Colorado (PhD). He has taught at Morningside College (Sioux City, Iowa), the University of Louisiana, and the University of Colorado before taking his present post on the Kansas institution's faculty.

* * * *

ALSO in this issue, beginning on page 834, is the third and final article of a series on area development by utilities, written by C. E. WRIGHT, former industrial magazine editor and free-lance writer of Jacksonville, Florida. MR. WRIGHT tells us of actual case examples in the creation and following out of programs for community betterment by public utility companies in Georgia, Florida, western Pennsylvania, Michigan, and New Jersey.

* * * *

THE article on the importance of utility highway liaison, which begins on page 845, comes to us from SAM HOUSTON, chairman of the National Liaison Committee of the Right of Way Association,



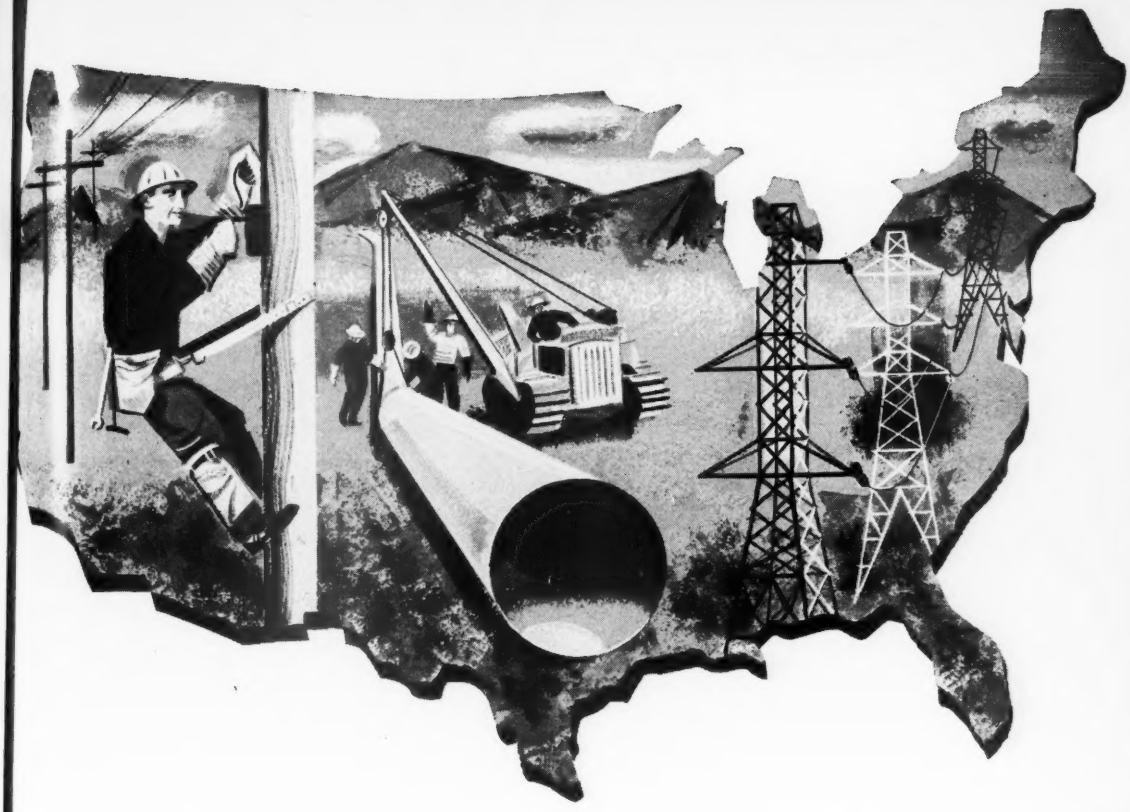
Fabian Bachrach
SAM HOUSTON

and an attorney for the Chesapeake & Potomac Telephone Companies, which operate in Maryland, Virginia, West Virginia, and the District of Columbia. MR. HOUSTON is a native of the District of Columbia and was educated at Washington public schools and National University Law School (now part of George Washington University). He is a member of the District of Columbia bar.

MR. HOUSTON also served in the U. S. Navy with the rank of Commander, during World War II. He has written a number of articles on the subject of right-of-way problems arising out of the tremendous highway construction program prompted by the Federal-Aid Highway Act of 1956. He has served as chapter secretary, regional chairman, and national chairman and director of the American Right of Way Association. This group is composed of 29 chapters and 6,500 professional right-of-way men engaged in such pursuits with highway departments, public utility companies, and other agencies throughout the country. He has been closely connected with telephone right-of-way problems for many years and took an active part in the organization and formation of Potomac Chapter No. 14.

THE next number of this magazine will be out December 3rd.

The Editors



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(December 3, 1959, issue)

★

TIGHT MONEY AND UTILITY REGULATION

Within the past few months there are signs that the label "big spender" is losing its vote appeal. Distrust of our once impregnable dollar now exists in some conservative banking circles abroad. Our diminishing gold hoard is causing concern about our fiscal policies. Fergus J. McDiarmid, vice president, investments, The Lincoln National Life Insurance Company, Fort Wayne, Indiana, and well-known author on utility investment, has written a thoughtful commentary on financial straws in the present-day winds. What this veteran institutional investor sees ahead of us is worthy of careful consideration by all utility people and their regulators.

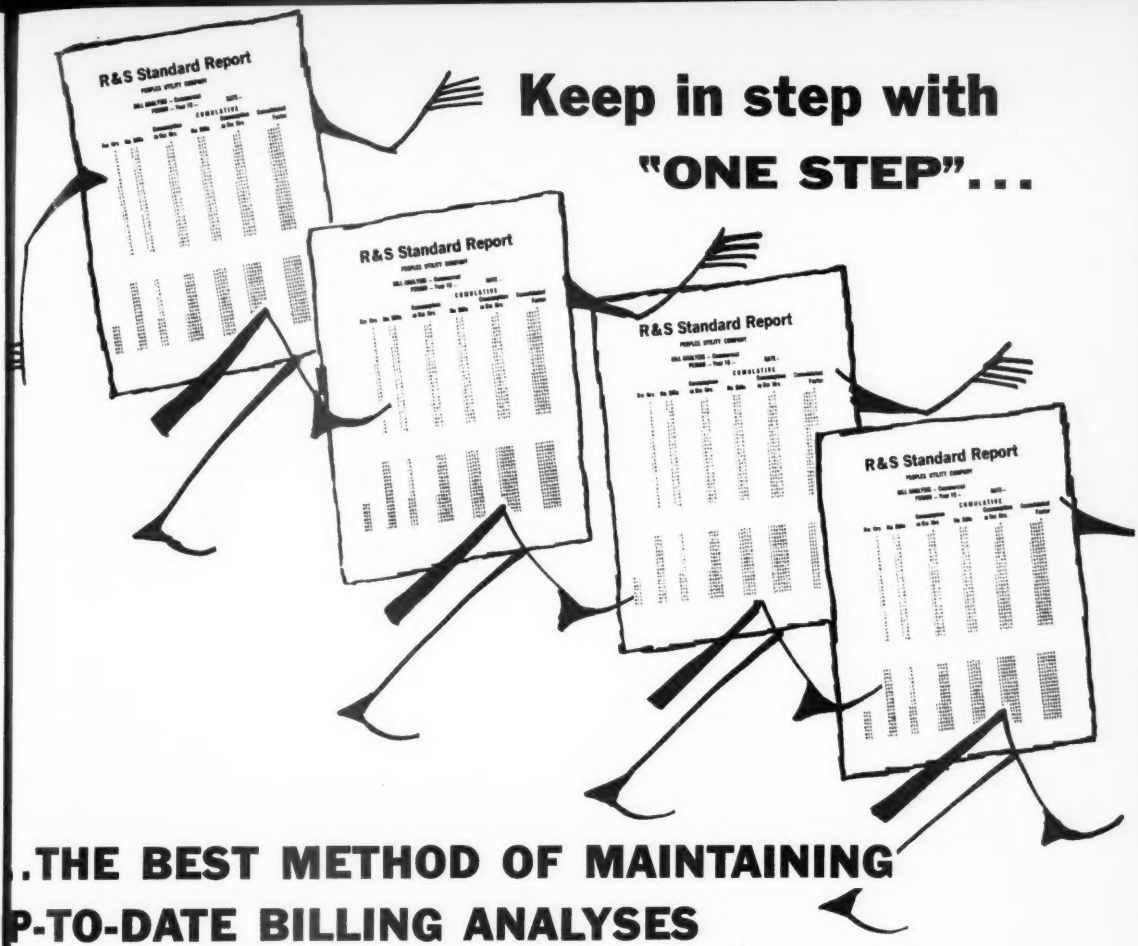
ELECTRIC SUBSIDY—FOR WHOM?

More than sixty different types of businesses have been invaded by subsidized cooperative operations, according to Dean H. Mitchell, president of the Northern Indiana Public Service Company. Can the utility business continue indefinitely to withstand such intrusion? As tax-paying businesses leave the field, the costs of these subsidies tend to increase, raising the question of who will eventually be left to pay the bill for federal upkeep and national defense. Our earlier concern for supplying the farmer with necessary utility services is now giving way to concern for the disposition of an expanding creation of government subsidy.

THE ETERNAL TRIANGLE OF MANAGERIAL RESPONSIBILITIES

There is an eternal triangle in the life of every telephone company management. It is not a triangle of lurid romance, but a very practical bread-and-butter problem of balancing the demands of three different groups. There are the customers, the investors, and the employees. A. J. Barran, president of the General Telephone Company of the Northwest, tells how it is a telephone company's responsibility to carry out whatever course of action is necessary to fulfill its total obligation to all three classes. He breaks the eternal triangle problem into three parts and analyzes management's responsibility from the three respective points of view.

Also . . . ***Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.***



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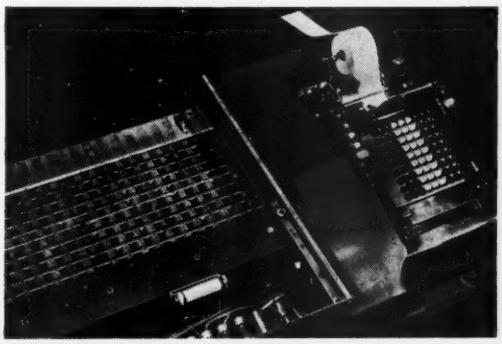

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Chairman of the board,
Standard Oil Company (Indiana).

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HOLMES ALEXANDER
Columnist.

"There are few, if any, absolutes in life, but surely a man or a nation does not do wrong when he behaves morally instead of expediently. The reward of doing what's right, just because it IS right, is never immediate and obvious. This is as it should be. Otherwise, we might be acting to snatch the reward instead of honoring the principle."

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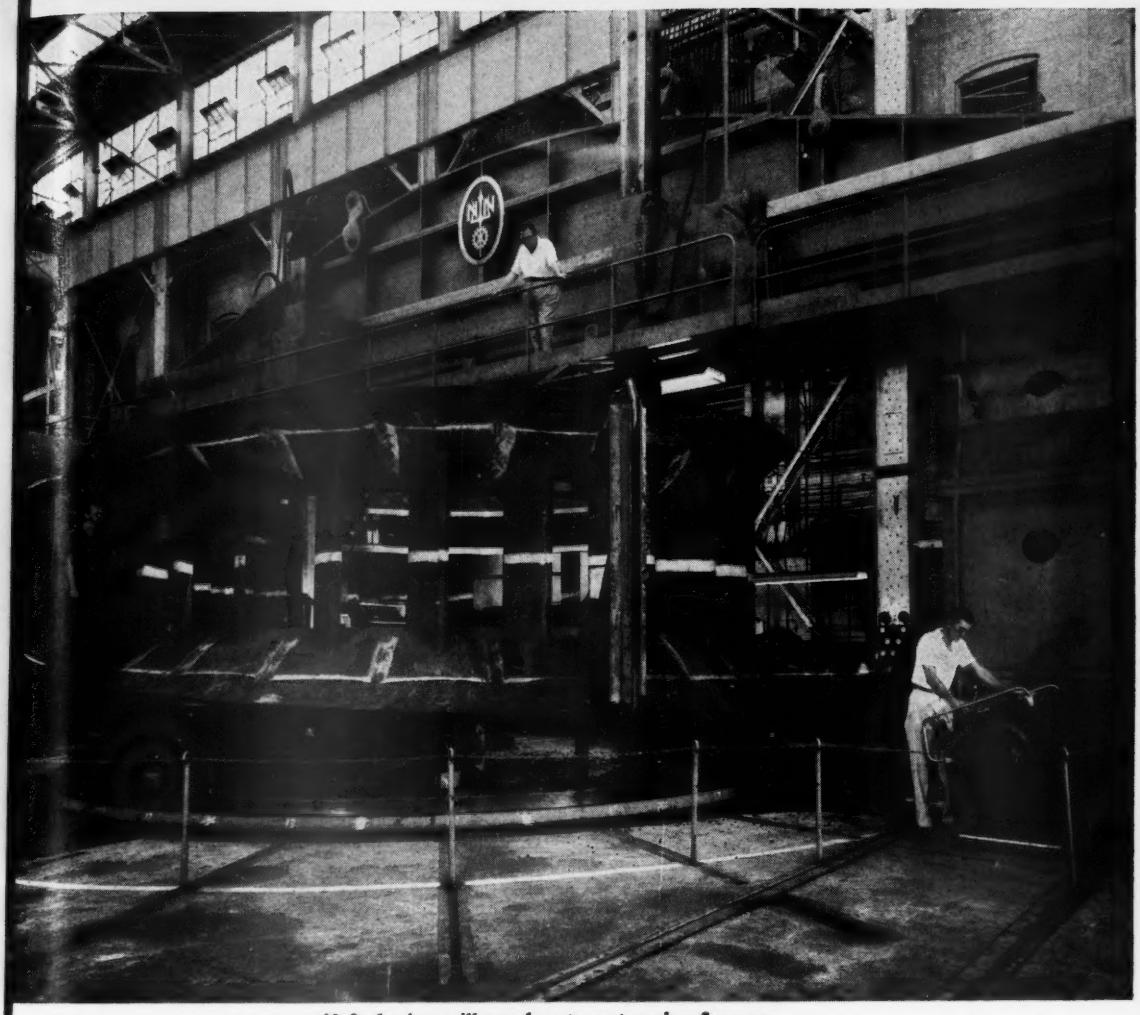
SIR JAMES GRAY
Leading British zoologist.

"One of the most important social aspects of modern science is its repercussions on international relationships. Here there will always be potential danger and waste of human effort until individual nations are prepared to think in terms of the welfare of humanity as a whole. [It is] impossible to be a scientist without being a human being and recognizing that life depends much more on moral principles than on scientific knowledge."

LLOYD WRIGHT
Former president, American Bar Association.

"We have drifted down the paths of paternalism, looking more and more to security, wherever or however it may be found, and abandoning the good old American traits of thrift, dignity in work, independence, and pride of accomplishment, and the joy of succeeding by overcoming all obstacles. . . . The process is gaining increasing momentum. Too many of our people have been willing to barter their precious right to govern themselves for the temporal advantages of financial favor granted by the paternal grace of the benevolent, all-engulfing federal government. . . . citizens [should] demand that those who serve us in government do so without favor, as our servants and pursuant to a rule of law."



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Organized as Central Utilities Atomic Power Associates, these utilities will share in the research and development costs: Northern States Power Co., Central Electric and Gas Co., Interstate Power Co., Iowa Power and Light Co., Iowa Southern Utilities Co., Madison Gas and Electric Co., Mississippi Valley Public Service Co., Northwestern Public Service Co., Ottertail Power Co., St. Joseph Light and Power Co., Wisconsin Public Service Corp.

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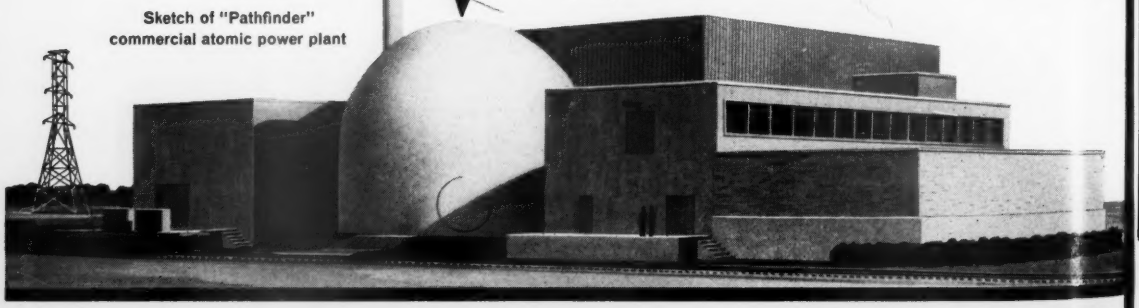
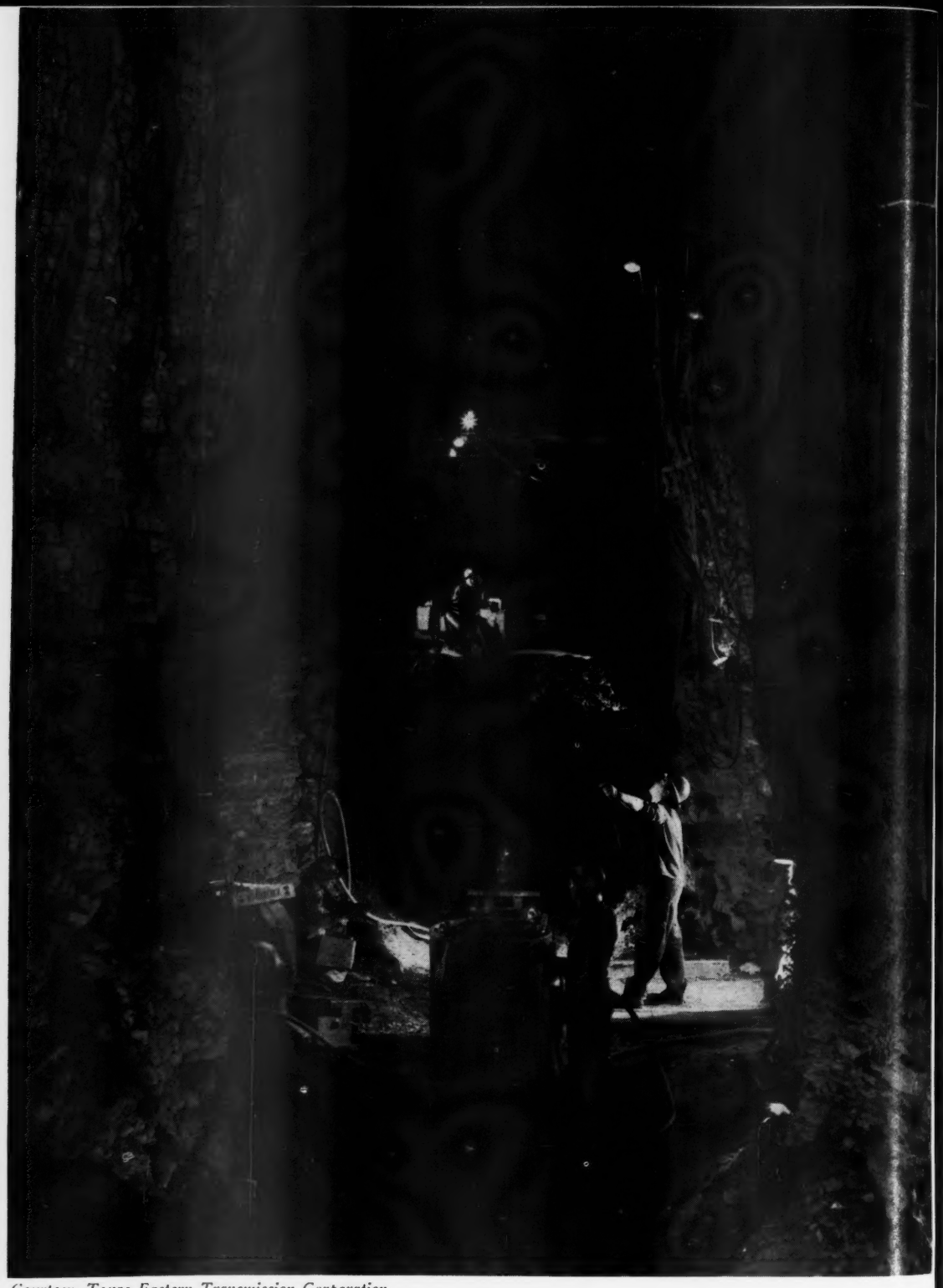


UTILITIES *A·l·m·a·n·a·c·k*

NOVEMBER - DECEMBER

Thursday—19 *American Gas Association, Accounting Section, begins managing committee meeting, Phoenix, Ariz.*	**Friday—20** *Southern Gas Association, Sales Section, begins round-table conference, Biloxi, Miss.*	**Saturday—21** *American Water Works Association, Cuban Section, ends three-day meeting, Havana, Cuba.*	**Sunday—22** *Electric Companies Public Information Program, Steering Committee, will hold meeting, New York, N. Y. Dec. 8.* ***Advance notice.***
Monday—23 *Instrument Society of America begins symposium of solid state devices in instrumentation, Philadelphia, Pa.*	**Tuesday—24** *American Institute of Electrical Engineers and National Electrical Manufacturers Association will hold conference on application of electrical insulation, Washington, D. C. Dec. 8-10.* ***Advance notice.***	**Wednesday—25** *Radio and Television Executives Society begins luncheon meeting, New York, N. Y.*	**Thursday—26** *National Retail Merchants Association will hold annual convention, New York, N. Y. Jan. 10-14, 1960.* ***Advance notice.***
Friday—27 *Pennsylvania Electric Association, Systems Operation Committee, will hold meeting, Philadelphia, Pa. Jan. 21-26, 1960.* ***Advance notice.***	**Saturday—28** *Oklahoma Utilities Association, Accounting Section, will hold meeting, Tulsa, Okla. Jan. 22, 1960.* ***Advance notice.***	**Sunday—29** *American Society of Mechanical Engineers begins annual meeting, Atlantic City, N. J.*	**Monday—30** *Florida Telephone Association begins annual convention, Jacksonville, Fla.*
DECEMBER **Tuesday—1** *Eastern Joint Computer Conference begins, Boston, Mass.*	**Wednesday—2** *American Institute of Mining, Metallurgical, and Petroleum Engineers begins electric furnace conference, Cleveland, Ohio.*	**Thursday—3** *Interstate Oil Compact Commission begins annual meeting, Philadelphia, Pa.*	**Friday—4** *National Warm Air Heating and Conditioning Association ends four-day annual convention, St. Louis, Mo.*



Courtesy, Texas Eastern Transmission Corporation

Man-made Propane Storage Cavern

Near Lebanon, Ohio, Texas Eastern Transmission Corporation has carved out of shale rock a subterranean vault for the storage of propane gas. Shown is a section of this man-made cavern 350 feet underground, which is designed to simplify shipment and delivery of propane.

Public Utilities
FORTNIGHTLY

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The Law of Government Intervention

By JOHN D. GARWOOD*

In a period when businesses are just getting started, they frequently welcome government aid and direction. But most businesses, historically, attempt to avoid government intervention. They learn that such federal assistance creates fear, uncertainty, tends to make an industry too dependent and often helpless to solve its own problems. How the law of government intervention operates is well-illustrated by what has happened in the uranium industry.

We live today in what has been described as the Santa Claus state, the transfer payment state, the grab-bag state, the welfare state, and by other terms equally descriptive. We live in a society of organized pressure groups, of commission government, public utility regulation, antitrust laws, farm price supports, social security, supervision of collective bargaining, regional planning of the kind involved in the Tennessee Valley Authority.

*Professor of economics, Fort Hays Kansas State College, Hays, Kansas. For additional personal note, see "Pages with the Editors."

The thesis being presented here is that governmental intervention in the pricing process of economic goods brings forth a train of events about as predictable as laws of motion and gravitation. The steps involved are several. This predictable process runs about as follows: (1) surpluses; (2) uncertainty and fear in the industry; (3) an expressed desire to be competitively free; (4) pressures for more governmental intervention; (5) stated programs for alleviating difficulties; (6) no short-run solutions; (7) no long-run solutions.

The experience of the uranium industry during the last decade has been illustrative of this law which for want of a better description I have called Garwood's Law of GI (government intervention). Algebraically speaking this might be expressed: $I + GI = (IGI)^N$. I equaling industry, GI equaling government intervention, IGI equaling an industry infinitely directed by the government.

The Uranium Industry

WE in the U. S. have not always been a great producer of uranium. As recently as 1948 the U. S. was a "have not" nation as far as uranium was concerned. At that time our uranium was supplied from Canada and the Belgian Congo.

In 1948 known uranium reserves in the United States approximated one million tons, averaging 0.20 per cent U_3O_8.

The strategic importance of this fission material made it imperative that the country explore possibilities of domestic extraction. Prior to this time there had not been any intensive effort to exploit uranium ore possibilities in the U. S. although uranium-bearing carnotite ores had been mined in our western states as sources of radium and vanadium.

Since 1948 there has been rapid growth in the uranium mining industry. In 1950 output of uranium ore in the U. S. was at the rate of about 70,000 tons annually. In 1958 total output approximated 5.2 million tons as compared with 3.7 million tons in 1957.

During the year of 1958 production of U_3O_8 was at the rate of 15,000 tons annually. As of December, 1958, uranium ore reserves in the U. S. were estimated at 82 million tons averaging 0.27 per cent U_3O_8.

In 1953 reserves were estimated at 5 million tons; 1954 at 10 million tons; 1955 at 25 million tons; 1956 at 60 million tons; and in 1957 at 70 million tons. The growth in discovered reserves has been extremely large.

ONE area stands out in this rapid expansion of discovered reserves. Approximately 70 per cent of the reserves are found in an area in New Mexico which could be included in a circle having a 15-mile radius.[1]

Approximately 1,750,000 tons of ore had been stockpiled by government and private firms by January, 1959.[2]

While the government is the final possessor in the uranium ore to uranium process, as far as possible, the milling operations have been privately manned. By December, 1958, 23 mills were processing the ore. Of these, nine were new private mills holding AEC contracts. Thus, as private mills come into operation the commission shifts purchases from ores to mill concentrates. In October, 1958, the commission discontinued its buying station at Grants, New Mexico, since private firms were deemed to be sufficiently numerous to provide a market for mines in the area. Thus, as of January, 1959, the only commission ore-buying station in operation was at Monticello, Utah.

In the early years, 1951, 1952, and 1953, the commission established the ore-buying stations in order to facilitate rapid development. Private initiative was not thought economically mobile enough to establish and maintain such ore units. As the years progressed government buying

stations were closed as private stations were established.

In the establishment of such mills where there was estimated to be ore sufficient to warrant such a mill, then said mill would be declared eligible for a concentrate contract with the AEC. Evidence of financial ability would be furnished to the AEC.

A Guaranteed Market

THROUGH the media of a guaranteed market for the ore at fixed prices, a government-supported market, miners were thus protected in their search for and the extraction of the ore. As in the field of agriculture so in the field of uranium mining, fixed prices, a guaranteed market, have begot surpluses and surpluses have begot varying solutions, all having a common denominator of yet more government control in the uranium industry.

The final product of the industry is sold to the government which has shaped the uranium industry from mining through milling operations, as well as the uses to which the final product may be put. Thus, during the last decade the AEC has guaranteed a high degree of safety in investment by permitting rapid amortization of equipment and facilities as concomitant with a guaranteed price for the product.

First purchasing guaranties began February 1, 1949, running through to June 30, 1954. Prices were advanced on March 1, 1951, and extended to March 31, 1958. On March 9, 1953, prices were extended again to March 31, 1962.

Hence, companies with contracts until 1962 have no fear about their investments up to that time.

A Pattern of Complaints

IN spite of the crutch of government, many complaints have arisen in the industry. Historically in governmentally controlled industries this has been true. The pattern repeats itself. These complaints appeared in the *Salt Lake Tribune:*

1. Atomic Energy Commission policy as presently constituted favors foreign producers of uranium as to both price and contract length.

2. . . . The program will have a tendency to run at full blast, then end with an abrupt shutdown, much as was the case of the ill-fated domestic tungsten development in the West. The country will then have no continuity in mining and development of domestic sources of uranium ore.

3. The government established absolute ownership of fissionable materials in the United States. There is no free market.

4. Commission policy has resulted in "picking and choosing" among which operators and districts will receive full development in this period and which areas and operators will not.

5. Commission policy is freezing present operators in a rôle of raw materials development, preventing others from entering the field.

6. The moratorium on new mill construction placed into effect by the AEC will result, if continued, in a substantial loss to some operators who have developed large, new reserves lacking a present market.

7. Present mine and mill policy is resulting in high grading of uranium deposits which is wasteful of a valuable fissionable material.

8. If allowed to continue on its present path, the program will result in serious hardship to certain areas of the western United States.[3]

The Law of GI—Surpluses

WE have noted earlier that where the place of supply and demand is taken by a guaranteed price, surpluses are encouraged to appear. This has been true in agriculture as well as uranium. This governmental policy, then, has created production of such staggering amounts that the government has directed its policy toward curtailing the program. This was formally noted in a statement from the AEC October 28, 1957.

The Atomic Energy Commission's uranium program, which was initiated less than ten years ago, moved slowly at first and then rapidly gained momentum. Production greatly increased during the past four years but a major increase will come in the next twelve to eighteen months with the completion and operation of a number of large Canadian and American uranium mining and milling projects.

Uranium deliveries under the commission's present domestic and foreign commitments appear adequate for military and power requirements as projected on an annual basis for the next few years. Furthermore, we are in the fortunate position of being able to expand, substantially, domestic production in case of sudden increase in requirements. Canadian production also could be expanded.

Consequently, we have arrived at the point where it no longer is in the interest of the government to expand production of uranium concentration. . . . Under these circumstances, the commission, at this time, is faced with limiting commitments for additional domestic uranium production. Proposals for domestic contracts which already have been submitted and are under review still will be considered in the light of the discussions which have taken place. In some instances, these discussions were initiated a year or more ago.

With respect to new proposals between now and 1962 for additional mill construction or mill expansion, the objective of the commission will be to limit production to the approximate level which will be reached as a result of existing commitments. . . . The immediate objective is to keep production and requirements in reasonable balance, but the long-range problems are to develop additional ore reserves for our future requirements.[4]

Uncertainties and Fear

IT was also alleged earlier that when competition in determining price is removed this is conducive to confusion, uncertainty, vagueness, fear on the part of producers relying upon government directive for a course of action. The hearings before the Joint Committee on Atomic Energy bear out this allegation. An illustration of this feeling is indicated in representative statements presented below:

Officials of the commission have

made frequent reference to the post-1962 program in addresses to the public. In connection with this announcement, press release No. 830 stated: "In this, assurance will assist uranium mining and milling firms in planning future operations."

Many firms have taken this statement to their bankers and have proposed programs of finance extending beyond March, 1962, and they have been told that the press release was indeed reassuring; but that further details of the program would be required for a formal finance program. Such firms have, accordingly, been forced to make their plans without such assistance.

. . . Twenty-one months have transpired, one-third of the time between the date of the announcement and the commencement of the program; and the industry is still anxiously awaiting the full details of the program to be defined in a manner that will support sound planning.[5]

And again:

This statement of confusion arises from the statement of policy credited to the Atomic Energy Commission recently when Mr. Johnson stated: ". . . We have arrived at the point where it no longer is in the interest of the government to expand production of uranium concentrate. . . . It would be undesirable from the standpoint of industry as well as the government to expand the uranium production rate beyond currently projected requirements and then be faced with a major curtailment at some later date."

This statement alone has upset the stock market which is the very basis for financing the exploration and development and production that this young industry has been able to espouse successfully. . . .

. . . I do not pretend to be an expert on this matter but certainly I do know that in the absence of a clear-cut policy of procurement by the government for the future, chaos will set in and the possibility for obtaining financial backing for further exploration and development will indeed be nebulous.[6]

It was also noted that there was a paucity of information available:

Lack of information or appraisal estimates on the long-range needs of the monopoly domestic market for uranium has prohibited long-range planning by the domestic raw material producer. He has, therefore, proceeded to explore for and to develop ore reserves largely on the basis of good faith in the commission's precedent-set policy of purchasing any ore developed, which was of amenable quality and grade.

The sudden and largely unexpected limitation policy announcement demanded sudden and drastic revaluation of future plans. We feel that the Atomic Energy Commission should release and publicize to the fullest practical extent information and data on all phases of uranium production and use, in order that the mining phase of the industry might more intelligently plan its future activities.[7]

Thus is uncertainty indicated for stockholders, managers, workers, and all con-

cerned with the present and the future of the industry.

Desire to Be Free

ALTHOUGH man may welcome government aid and direction in the first stage of effort, yet, historically, he has attempted to escape such governmental intervention. Mercantilism was popular initially but over the years relief was sought from the hand of government. Adam Smith's great book *"Wealth of Nations"* found a warm reception by those who sought a philosophy and direction for lessened governmental influence in their economic lives.

So in the uranium industry. Thus:

> The average uranium miner and miller would give anything to be freed of his present dependence upon government markets. He is in the business to stay—and he is basically fearful of the effects of overproduction which might later result in serious and heavy cutbacks. At the same time, during the development of the uranium industry in the past few years, he has accepted the government's incentive programs at face value. He felt that he should not question—that he could not question the reasons behind these requirements.[8]

Other statements in similar vein are found in the Joint Committee hearings. Those receiving government aid find themselves increasingly enmeshed.

Pressure for Still More Government Intervention

ALTHOUGH groups may wish to free themselves from government direction, yet those who have looked to the government find themselves also seeking governmentally inspired solutions to their dilemma. Controls then become progressively intensified. Those affected allege it to be the duty, the obligation of the government to solve their problem. To accomplish this objective those affected secure the allegiance of governmental officials and representatives on state, local, and federal levels.

These allegations are well substantiated by testimony given before the Joint Committee on Atomic Energy. Thus:

> Now the way I see it, AEC and the United States government are obligated to the miners of this country. The miners relied on the promises of the officials of the AEC that it would take their ore if and when they discovered and produced it provided it was suitable ore.
>
> They went out and spent their money and a lot of time and now they find themselves in the embarrassing situation where they have the ore on hand and they may well go broke after they have discovered the ore and are ready to produce it.[9]

And from Wyoming comes this word:

> The Wyoming uranium industry, since its beginnings, has been confronted with steadily increasing market problems. These problems are so great at this moment that a great portion of

the industry faces economic collapse and great financial loss unless milling capacity is granted.

The Wyoming uranium situation today may be summarized briefly as follows:

1. Tremendous ore reserves have been proven, far in excess of the amount of milling capacity available to process these ores.

2. Great sums of private and public risk capital have been invested in the exploration and development of ores.

3. The Wyoming industry has been encouraged to reach its present stage of development by the directives, representations, actions, and inducements of the Atomic Energy Commission, which now denies it the opportunity to recover its tremendous investments in uranium.[10]

In New Mexico the uranium situation appears as follows:

Resolved, that in the interest of the economic welfare of the state of New Mexico, the representatives of the state of New Mexico in the Senate and the House of Representatives of the Congress of the United States be requested to call upon the Joint Congressional Committee on Atomic Energy to hold public hearings for the purpose of clarifying the policies of the United States Atomic Energy Commission and protecting the interests of the uranium industry in New Mexico to the fullest possible extent. . . .[11]

And yet again from New Mexico:

A healthy domestic uranium industry can be maintained and the domestic producer can survive only if our government takes steps now to assure a guaranteed market through March, 1962, and an early announcement that contracts for foreign concentrates will not be renewed as they expire after that date to the extent that the domestic producer can supply our government's requirements.[12]

And from the neighboring state of Colorado:

As the senior Senator from Colorado, I am vitally interested in the uranium industry in all its aspects, including exploration, development, production, and milling. It has become and is a vital economic factor in Colorado.

I have received definite written representations that there now exists a serious condition of hardship in the uranium industry along the Front Range of the Rocky Mountains. This condition is due in part to the fact that uranium producers are no longer getting adequate service from existing mills.[13]

Various Programs Are Suggested

IT then follows in the course of events that proposals are put forward as methods of alleviating the economic discomforts of governmentally fixed prices. The uranium industry illustrates well this chain of events. These solutions have been many and diverse. One group would have the government establish "soil banks" for the uranium miner. Thus, under this concept he would be paid a portion of the value of the uranium discovered and developed. When finally mined he would be additionally reimbursed. Another group advocates a huge public works program placing the federal government in the public power field.

TESTIMONY before the Joint Committee has been suggestive of the planning procedures visualized. Thus:

> There are two things which I would recommend that would insure aggressive exploration and development in the uranium industry.
>
> 1. That the Atomic Energy Commission assure all individuals and corporations, both large and small, which are active in the search for uranium, milling capacity for any ore discovered over a 10-year period. . . .
>
> 2. To cease buying foreign concentrates at a much higher price than exists in this country as soon as the contracts with Canada and South Africa expire. . . .[14]

Another suggestion made was as follows:

> It has occurred to me that other steps might be taken by our government to maintain a healthy industry and encourage the continued development of reserves—whether in old or new mining districts. These steps, while perhaps not so costly to the government as the reinstatement of the recently abandoned successful procurement policy, would tend to encourage the flow of venture capital into the industry. I offer these suggestions:
>
> 1. Liberalize the Defense Minerals Exploration Administration program. Venture capital might be encouraged to continue exploration on a large scale . . . etc.
>
> 2. Encourage the development of reserves which would remain in the ground until needed . . . etc.
>
> 3. Encourage the development of a commercial market for uranium. . . .[15]

Thus, does government intervention call for more of the same by those affected although in the same breath they wish they were completely free of the hand of government. It has been true in agriculture.

The process has been repeated in uranium.

Short and Long-run Solutions

THE pressure upon the government led to a respite from the October, 1957, announcement. On April 2, 1958, the commission stated a policy of providing an ore market in certain areas having no market or having an inadequate market, and, of providing a larger market for ores from independent mines in areas having

adequate milling capacity but not sufficiently available for independent ores. But no permanent, short-run, or long solution has been found.

Thus on September 16, 1959, in Denver, Colorado, the American Mining Congress formulated new demands that the AEC take steps to help domestic uranium producers. More than 2,600 representatives of mine owners, producers, and processors, and industrial users joined in sessions considering the uranium problem.

Briefly, the resolution adopted called for the AEC to drop all current restrictions on domestic uranium sales and to stop buying from foreign producers. Further, the resolution called for the government to permit commercial sales of uranium.

The resolution also called for long-range planning by the government in the field of uranium.

As is evident from the tenor of the thinking, short-range and long-range solutions remain to be found in the uranium field.

In other areas of industrial America, price and profit have been permitted to allocate resources and set price. In these areas short-run solutions of supply and price are continually being achieved. Long-run planning is likewise achieved in this decentralized manner.

Conclusion

THUS does this industry illustrate the law of GI. There is a lesson to be learned again in the uranium industry. The Reverend T. R. Malthus 175 years ago stated this lesson as follows: Political economy is perhaps the only science of which it may be said that the ignorance of it is not merely a deprivation of good, but produces great positive evil.

Footnotes

[1] Hearings before the Joint Committee on Atomic Energy, Congress of the United States, "Problems of the Uranium Mining and Milling Industry," February 19, 24, and 25, 1958, pp. 287-292.

[2] Twenty-fifth semiannual report of the Atomic Energy Commission, January, 1959, pp. 5-7.

[3] *Salt Lake Tribune*, February 23, 1958, "West to Put U-Woe in Congress Hamper."

[4] United States Atomic Energy Commission, remarks prepared by Jesse C. Johnson, director, division of raw materials, before the Atomic Industrial Forum, New York, New York, October 28, 1957.

[5] Hearings of the Joint Committee on Atomic Energy, Congress of the United States, testimony of Gordon A. Weller, Uranium Institute of America, February 19, 24, and 25, 1958, pp. 32, 33.

[6] *Ibid.*, statement of Joseph M. Montoya, Representative in Congress from the state of New Mexico, pp. 82, 83.

[7] *Ibid.*, statement of Miles P. Romney, manager, Utah Mining Association, Salt Lake City, Utah, p. 190.

[8] Hearings before the Joint Committee on Atomic Energy, Congress of the United States, February 17-19, 24-26, 1959, testimony of Gordon A. Weller, p. 404.

[9] Hearings before the Joint Committee on Atomic Energy, Congress of the United States, statement by Senator Frank A. Barrett, p. 49.

[10] *Ibid.*, statement by Roy Peck, copublisher, *Riverton Ranger*, Riverton, Wyoming, p. 57.

[11] *Ibid.*, statement of Jack Wentwork, director, New Mexico Economic Development Commission, p. 87.

[12] *Ibid.*, statement of Victor Salazar, president, Quinta Corporation, Santa Fe, New Mexico, p. 107.

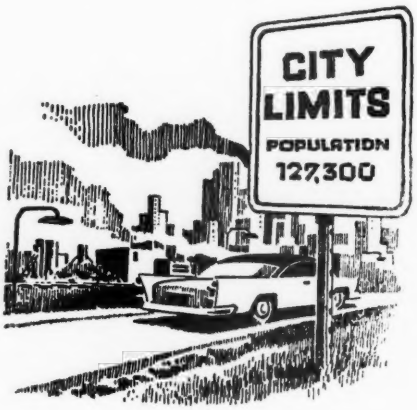
[13] *Ibid.*, statement of Senator Gordon Allott, state of Colorado, p. 154.

[14] *Ibid.*, statement by Richard E. Bolum II, president, Sabre-Pinon Corporation, Santa Fe, New Mexico, p. 100.

[15] Hearings before the Joint Committee on Atomic Energy, Congress of the United States, February 19-21, 28, March 3, 4, 1959, statement by Phillip L. Merritt, p. 552.

Area Development by Utilities—

Southeast, Pennsylvania, New Jersey, and Michigan



An entirely new approach to community planning has been evolving in the utility industry. Such activity is viewed as vital to the long-term load-building efforts of a company. Planned communities are becoming more frequent. They help municipalities. They attract industries. And planned growth is always more efficient and economical.

C. E. WRIGHT*

THE South has been a fertile field for community development work by utility companies, especially during recent years when many of these states have been changing from a predominantly agrarian economy to one that is heavily industrialized. Back in 1944 the Georgia Power Company saw the need for positive action that would make Georgia towns better places to live and work. For many years Georgia Power has operated under a philosophy it defines as follows:

> The company's well-being is closely identified with that of Georgia, the state it serves. The company will prosper most if it can increase the prosperity of the people—and therefore their ability to buy. This task must be done in the individual cities, towns, villages, and communities, where the people, our customers, live and work. Many businesses take the position that their main objective is simply to sell products—to get as large a share as possible of the existing buying power. Georgia Power Company believes that it will profit more in the long run by increasing the total number of spendable dollars; not by trying to get a larger share of the immediate dollar.

THIS "grass-roots" philosophy was born of a problem that sprung into prominence just before the end of World War II, when Georgians began to wonder what would happen when the returning veterans came home. They remembered what had happened after World War I, when many went to greener fields. Georgia Power Company and others in that state began to ask themselves this question: "When World War II veterans came home, would they be content to stay

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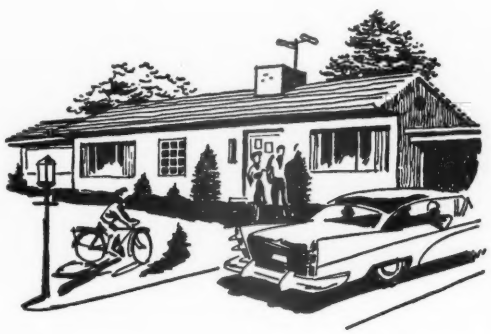
in their towns and communities after they had seen the modern cities, the glamorous commerce of this and other countries?"

A Contest for a Better Home Town

OUT of this questioning came the Georgia Better Home Towns Program, which Georgia Power initiated in 1944. It has become a model for utilities in other states and other regions of the nation. This program has expanded since it was first introduced. Some of the initial steps were these:

In 1944-45 the company sponsored a letter-writing contest to get people interested in their own home town and in the problem of making it a better place to live. The subject was "Five Ways to Make My Community Better." Awards were war bonds.

In 1945-46 several pamphlets were published, the most noteworthy a "Working Manual for Georgia Better Home Town Communities." In 1946-47 the company promoted an essay contest among high-school students on "My Community —Today and Tomorrow." In 1948 the first Champion Home Town Contest was started.



It was designed to "make people face their problems, analyze their needs, do something about them." The main projects were education; youth and recreation; business; industry; beautification; municipal development.

THIS hometown contest has become an annual event in which nearly 600 communities have participated during the years since it was started. "A tour throughout the state," says Frank Hood, manager of community development for the company, "reveals town after town that is clean, well-lighted, landscaped, with an abundance of new schools, churches, municipal buildings, swimming pools, ad infinitum. After several years of working with our towns it became evident to us that many municipalities had progressed as far as they could with the resources at their disposal. They had to provide new sources of income. Their natural reaction was to try to get an industry located in or near the community. Unfortunately, many of these towns were not ready for industry; they had no plans, no ideas, nothing to offer industry. They just wanted to get a new industrial plant. To help towns to create a favorable climate that would interest industry, we needed a program that would provide municipal planning as a primary need."

IN trying to fill this need, Georgia Power worked closely with Georgia Tech and its Graduate School of City Planning. Individual town meetings and area workshops were held. The next step was the preparation of a planning manual that would outline "a step-by-step plan of action in simple, easily understood language."

Planning Manual Devised for Communities

"WE wanted to offer these towns," says Mr. Hood, "a manual that would help their city officials to do much of the essential preliminary fact gathering and planning for themselves. We wanted the book to be in the form of a loose-leaf binder so that it could be kept up to date, enlarged from time to time, improved periodically with the experience that comes with use. The result was 'A Planning Manual for Communities of Georgia,' which was prepared with the assistance of the Graduate City Planning Program of the Georgia Institute of Technology."

After this book was published, the company's community development division gave special training to its representatives in its use. They, in turn, have passed their knowledge along to more than a hundred Georgia towns now making use of it.

"Community development committees in towns throughout Georgia," says Mr. Hood, "regard this planning manual as their Bible—a guide for the present and future planning of their communities to make them better places in which to live and work."

In a foreword in this manual, the company says "the very heart and strength of this program stems from its complete flexibility. From its beginnings as a clean-up, paint-up campaign on a statewide basis, this flexibility has permitted an orderly growth and development through various transitory or interim stages to the planning advisory service now being offered to Georgia communities by the company."

New Ideas and Push in Florida

THE importance with which the Florida Power Corporation looks at community development work is indicated by a recent reorganization in which the agricultural, industrial, and community developments of the company have been joined together in a new area development department. A company statement says that the operations of these departments have become more and more interrelated. "The primary objective of the agricultural department," it says, "is to promote greater utilization of electric service by rural customers, help broaden the economic base in farming, encourage new uses of electricity on the farm, and foster better relations and co-operation with rural customers and farm organizations.

"The community development department objective is to help towns help themselves. This is done by creating the desire within the community to prepare itself for industrial development through improvement of its economic, social, and physical facilities. This work includes planning, beautification, recreational facilities, roads, utilities, promotional activities, and many related fields. The industrial development department secures new industries for the areas in which we serve and works with existing industries." Andrew H. Hines, Jr., heads the new department.

FLORIDA POWER'S philosophy about all this is:

Florida's rapid growth and development is making an increasing number of cities aware that they had better do

something about developing a "road map" for their future. They are finding out that industries seeking new locations are asking some pretty pointed questions about what is being done on community planning.

In July the Florida Power Corporation published a cartoon-illustrated booklet, entitled "Let's Plan for a Better Community," in which W. W. Young, head of the Business Education Department, General Extension Division, University of Florida, collaborated. The company says:

> During the past eight years many communities in the Florida Power Corporation service area have initiated community development programs. Some have made great progress in their improvement plans, others not so much. All, however, have benefited to some degree and recognize that improvements just don't happen—they must be planned.

FLORIDA POWER gives this advice to communities within its system:

> Get as many people as you can in on the planning stage. (This is why we have community development clinics.)
>
> Decide what it is you want to do and explain — and explain — and explain. (This is what newspapers and radio and TV and public meetings are for.)
>
> Show everyone involved where he has a personal stake in the plan. (Don't expect people to join the parade just to carry the front end of the bass drum.) Before you decide who does what, conduct a talent hunt. There are folks in your home town . . . in your chamber of commerce, in city hall, in your school system, among your housewives and professional men who have real talent. Find them and use them.

These people, says Florida Power, must be deeply interested, recognized community leaders, active and respected in at least one major civic organization and willing to assume responsibility. The next step is to select a chairman, who should be "the kind of a person who is able to get people to work together."

Then, it is suggested, hold a public clinic to find out what people think needs to be done, to capture public interest, to select the things that should be given priority, and to provide a basis for making committee assignments. Other steps:

> Get lots of publicity, mail out notices, get word to all local organizations, print handbills and posters, organize telephone teams, provide baby-sitting and taxi service for people who would not otherwise be able to come, and get firm commitments from those who will serve.

FLORIDA POWER in the past eight years has helped to organize many of these community meetings. It supplies the "know-how" but leaves it to the communities to do the job after they get properly started. The new area development department of the company employs about a dozen men. Its chief adviser is R. H. Giedd, who pioneered in development work in Florida and who developed the present program. Florida Power's interest and success in community development resulted in the recent appointment of W. J. Clapp, the company president, as chairman of the Florida Development Commission, a state organization.

Story of New Bethlehem

TAKE a look now at a little town in western Pennsylvania, 75 miles from Pittsburgh—New Bethlehem, population 1,600 a few years ago and withering on the vine, largely because of a rapidly declining coal industry. Last year, however, New Bethlehem won first prize of $1,500 in its population class in the annual Pennsylvania Community Development Contest, an amount that was matched by the West Penn Power Company, which has taken an active interest in this development contest since it was inaugurated. A few years ago New Bethlehem faced a bleak future. Its population was almost stationary. Its industry consisted of a century-old lumber company, a small peanut butter plant, several modest brick and tile concerns, and a depleted strip-coal mining industry. High-school graduates had to move to other areas for work. With the formation of the New Bethlehem Area Development Company, the community went to work to obtain new industries. Since 1955 it has obtained several, partly through the help of the West Penn Power Company, that provide a total of 500 new jobs, with a payroll of about $2 million a year.

ALONG with the stimulus provided by new industry, the town adopted a program for civic betterment. The projects planned and completed during the 1958 project year were to attract at least one new industry, to assist in bringing more prosperity to the local dairy farming industry, and to increase recreational facilities, including the building of a community swimming pool. Accomplishment of these objectives won New Bethlehem top place in its population class in the statewide contest. This year's program includes the widening of Main street and installation of fluorescent street lighting, completion of a municipal off-street parking lot, a farm-aid program sponsored by the chamber of commerce, and to attract at least one more industry.

West Penn Power Active in Communities

CHARLES M. FIFE, manager of the area development department of West Penn Power, says his company "assists directly and indirectly in the several phases of this and similar community development programs throughout our 9,000-square-mile service area in western Pennsylvania with 379,000 customers. Community development representatives at the local level study needs, recommend, promote, and participate in improvement and betterment programs, including city beautification, business district modernization, industrial appreciation events, community development contests, and planning, zoning, and urban renewal programs. In addition, West Penn not only matches cash awards won in the Pennsylvania Community Development Contest, but urges banks, railroads, and other utilities and organizations to do likewise."

"It is our belief that this contest provides a powerful stimulant to our communities to undertake improvement programs. We have twenty persons who devote their full time to our area development activity."

New Bethlehem was recently singled out by KDKA-TV of Pittsburgh for

a special program, titled "New Bethlehem Points the Way," as an example of how communities can lift themselves up by their boot straps. Each year since the contest was launched in 1955, the number of contestants has topped 200; the 1959 total is 277. Last year 35 communities shared $20,000 in prizes. The Pennsylvania contest has won national recognition. Twice it has been awarded a Freedoms Foundation honor medal. Moreover, it is one of the most widely sponsored programs of its kind in the country.

In addition to West Penn Power Company, its utility sponsors are the Bell Telephone Company of Pennsylvania, the Pennsylvania Independent Telephone Association, the Pennsylvania Electric Association, the Pennsylvania Gas Association, and the Pennsylvania Natural Gas Men's Association. Other sponsors are the Pennsylvania Chapters of Industrial Realtors, the Pennsylvania Department of Commerce, the Pennsylvania Farm Bureau Federation, the Pennsylvania Motor Truck Association, and the Portland Cement Association.

OTHER operating subsidiaries of the West Penn Electric Company, the Potomac Edison Company in Maryland, the Potomac Light & Power Company in West Virginia, the Northern Virginia Power Company in Virginia, and the South Penn Power Company in Pennsylvania, have conducted joint conferences of community leaders. Another subsidiary, the Monongahela Power Company, has a well-organized program of activities in its rural communities. It recently started publication of an area development newspaper. Such a newspaper is also published by the West Penn Power Company.

The Monongahela Power Company has on its area development staff an economist, a forester, a geologist, a soil and water specialist, and a professional community recreation man, a combination of expert talent that has helped to solve many community problems in the area the company serves.

Unique Community Housing Plan

NEW JERSEY POWER & LIGHT COMPANY and Jersey Central Power & Light Company report that an unusual approach to community planning in relation to housing developments has been devised in Madison township. According to H. I. Phillips, area development representative of the utilities, the township enters into a contract agreement with the land developer before actual construction starts. Such things as schools, sewage plant and sewers, and water supply are spelled out in great detail. The builder is actually obliged to build a water system which the township controls. The number of schools and how many rooms they have, construction, location, etc., are also gone into very thoroughly.

In the field of housing development for communities the plan is unique. It was originated and developed by Mayor John L. Chamberlain and the members of the township committee and planning boards. It resulted from the chaotic, unplanned method of granting building permits that had been in operation. A plan that controlled housing growth, and did it on a logical basis, was therefore created. Under it, the economy impact of a large number of homes being built at one time was controlled. Just so many homes were allowed to be built in any one 12-month

period. Builders and the township formed an excellent working liaison under the plan.

And areas built in this way have created the proper environment for inducing new industry to locate nearby.

Comprehensive Plan in Michigan

In its six-county area in southeastern Michigan, The Detroit Edison Company has developed one of the most comprehensive community development programs to be found in the country. The keynote of its program is community planning.

"We have found in the past five years that just to put a new industry in a town is not the full answer to economic development in our region," says Vincent S. Madison, director of area development for Detroit Edison. "Increasing employment in a small town by means of a new factory can create many new problems that really need solutions. We, therefore, look on this problem of area development basically as a land use problem."

Mr. Madison says that the company's objective is to develop in its territory the very best land use that will guarantee a long and prosperous future. "We want to avoid or prevent," he says, "urban redevelopment. We want to prevent the next decade's slums. We want to have our industrial development areas so well-planned and laid out that they will not deteriorate in a rather short period, leaving us with empty factories. A new plant in a small town immediately brings new prosperity and new workers which create growth.

"New subdivisions develop as a result of increased employment. We want to know: Will a town be a better place to live, work, and play when it is twice as big?"

Detroit Edison's objective in its community development work is to help communities develop a bright economic future. In the philosophy which guides its activities along such lines is the thought that "a community which has a bright economic future is one which has a long-range, comprehensive plan for growth." Such a plan, the company contends, should include a thoroughfare plan, a determination of lot sizes in high-income, low-density areas, as well as a definition of size in the more modest income, higher-density areas.

Its community planning also envisages the laying out of shopping centers, playground areas, school sites, and other such community facilities, well-planned in advance so that it will not be necessary to condemn valuable property to build them. There should also be adequate industrial land zoned exclusively for industrial purposes.

Professional Planner Was Employed

"WE have a number of communities now with such plans," Mr. Madison points out. The plans were prepared under the direction of a professional planner, paid for by the community, but hired through the efforts of Detroit Edison. Such communities, Mr. Madison declares, are "ready for industry." They know the importance of a balanced tax base; they recognize the need to reserve land for gainful employment of their people before land is grasped by other types of land developers; they recognize that a well-planned community must have recreational facilities, that it must lay out roads and schools ahead of time, and they also recognize that any good community plan must have flexibility so that it can be changed in some aspects as the growth of the town or city progresses.

"It is our prime objective to promote the development of such plans in the communities we serve," says Mr. Madison. "We then have a sound foundation for the location of industries which we bring to these communities as prospects."

Town Case History

AT this point it might be well to observe an interesting case history of a town selected by Detroit Edison when it first started this planning program a few years ago. Detroit Edison picked the down-river community of Carleton, with about 1,000 population, lying between Detroit and Toledo. The town had three railroads, plenty of land and water, and a strategic location. The company was convinced that this town had potentialities for terrific future growth, but it had no plan for expansion.

Detroit Edison subsidized a planning operation for this town, but insisted that the town itself contribute significantly to the cost within the limits of its budget. Detroit Edison hired one of the most noted civic planners in the United States, Walter Blucher, who with his staff worked in the community for three years. Representatives of Detroit Edison attended all the planning meetings and watched the techniques Mr. Blucher used in educating the town's planners.

THE townspeople or their representatives came up with their own plan after several choices had been presented to them by Mr. Blucher. The plan finally decided upon was flexible enough to permit the community to grow from 1,000 to 35,000 without a major change in the basic plan. Once the plan had been adopted, Detroit Edison made printed copies of its essential features to use as samples for other communities. "We did this," said Mr. Madison, "to indicate to other communities the degree of planning necessary, the magnitude of the job, the things they should concern themselves with, so that when they hired a planner they would have an intelligent idea about what the planner ought to do for them. This has been a most valuable tool both in educating our own personnel and in furnishing an example for other communities. We still get many requests for this plan from outside our territory, because never before has a very small town had the privilege of having a nationally known planner do a job for them.

"This project also helped us to solve some of the basic problems of getting the planning done before the growth takes place. We have been fortunate in using this example in other communities. Some small towns in our service area are now paying significant sums for planning that previously thought they couldn't afford it.

"We have been able to convince them that they cannot afford not to do in that the procedure will avoid costly mistakes. Communities that have followed this program have been quite successful in getting new employment and also in developing a plan for the growth of their town so that it does not result in an undesirable mess ten or fifteen years from now."

Human Resources Developed, Too

IN addition to trying to develop the proper use of the land resources of a town, Detroit Edison also tries to develop the human resources. The company acquaints the town leaders with the importance of generating new job opportunities and sells them on the need to have a committee of local citizens ready to discuss at any time the merits of their community with an industrial prospect. The company has also aided in the organization of local fund-raising enterprises to provide money for the building of lease-purchase plants of modest size for new industries. In fact, work is carried out by Detroit Edison with all levels of any community it has been solicited to help.

ONE OF THE tools Detroit Edison has used most effectively is a full-page advertisement in **Business Week** in which a town that has done a good community development job is featured under the caption, "Another Town in Southeastern Michigan Has Planned for Industry." These are four-color advertisements costing $8,000 per insertion. Detroit Edison foots the bill, but only for those towns that have done "an adequate job of planning for industry and for a completely better community." Any town that has thus qualified also gets a gift of $1,000 worth of brochures. Says the company, "No community is entitled to or eligible for these advertising helps without first having completed a plan for the future growth of the community. The plan must include reasonable acreage zoned exclusively for industrial use as well as other features of a well-planned community." Ten communities have been able thus far in the program to show sufficient progress to qualify for the advertisements.

Some Successful Methods

WHEN an industrial development program is successful, as it has been, according to the company, in such towns as Cass City and Bad Axe, for example, it is then led right into long-range planning for a better town. Thus there are two approaches: Sometimes communities start first from an interest in planning, with industrial development to come along later, or they may start with a primary interest in industrial development, to be followed by a complete plan for future growth.

A tool that has been particularly useful to Detroit Edison is a 24-page booklet, titled "How Six Michigan Counties Are Solving Common Problems," which has

been printed to acquaint county supervisors with the major problems that the area faces, such as water, sewerage, drainage, and highways. Detroit Edison produced it initially to acquaint the supervisors with the scope of their problems and to give them a sales piece to use in getting county funds.

THE Supervisors Inter-County Committee, embracing the six-county service area of Detroit Edison, is described by the company as "one of the most unique organizations in the United States." It is trying to solve large metropolitan problems with existing government and is "having a considerable success." Detroit Edison adds:

> There is agreement on the part of the people involved in the solution of water and sewer problems in metropolitan Detroit and southeastern Michigan without the need for a metropolitan form of government. This is pioneering of the highest degree in trying to use existing governmental forms to solve new problems, and it is beginning to get rather wide national recognition.

This six-county area of Michigan has 53 per cent of the state's population and absorbed 63 per cent of the state's population increase from 1950 to 1955. In five years Michigan gained 831,234 people; of these 536,733 were in the six counties.

"A Tale of Too Many Cities" is the title of another booklet that Detroit Edison has used with success in stirring interest among local communities in finding solutions for their own civic problems. While this booklet is designed to inspire people to act, another booklet, "The Ins and Outs of Planning," gets down to brass tacks in showing communities what to do and how to do it in setting up a community plan.

Planning and Zoning Manuals

DETROIT EDISON'S area development division also acts as a clearinghouse for treatises on planning and zoning, written by experts in the field. A few of these are distributed free of cost, such as "Michigan Laws Relating to Local Planning," published by the Michigan Department of Economic Development, and "Michigan Handbook for Local Planning," published by the Detroit Metropolitan Area Regional Planning Commisson, and its own booklet, "A Tale of Too Many Cities." Others are sold, such as:

"Action for Cities—a Guide for Community Planning," published by Public Administration Service, Chicago, price $1.

"Mr. Planning Commissioner," published by Public Administration Service, Chicago, price $1.

"Local Planning Administration," published by International City Managers' Association, Chicago, price $7.50.

"Planning for the Small American City," published by Public Administration Service, Chicago, price $1.

"Suggested Land Subdivision Regulations," published by Superintendent of Documents, U. S. Government Printing Office, Washington, D. C., price 45 cents.

"Zoning" by Edward M. Bassett, published by Russell Sage Foundation, New York, price $3.

"A Guide to Zoning for Small Towns," published by the Association of State Planning and Development Agencies, Chicago, price $1.

"Zoning and Civic Development," published by Construction and Civic Depart-

ment, Chamber of Commerce of the United States, Washington, D. C., price 30 cents.

DETROIT EDISON has also made good use of the motion picture, "Plan for Prosperity," produced by the Area Development Motion Picture Committee of the Edison Electric Institute in association with the American Society of Planning Officials and the American Institute of Planners. "This motion picture," says Detroit Edison, "has been very helpful to us in getting numerous communities to organize and initiate planning." Detroit Edison's area development director was chairman of the EEI committee that aided in producing this film.

Serving More than 400 Communities

DETROIT EDISON serves 402 communities in the 7,448 square miles of its six-county area. Not all of these communities, by any means, have qualified as "industry home towns," but those which have won a full-page color advertisement setting forth their industrial potentials have first planned their own future growth in a manner that meets the standards set up by Detroit Edison. The company publishes a booklet of these four-color ads, which is distributed to industrial prospects.

Each ad bears the company's recommendation: "Another community in southeastern Michigan has planned for industry."

TAKE the little town of Carleton, referred to earlier in this article, and what Detroit Edison had to say about it:

Seldom does a community have the opportunity to completely plan its future. Such an opportunity came to Carleton in 1955 when nationally known city planner Walter Blucher undertook the job of blueprinting the village. Studies showed that Carleton, less than 50 miles south of Detroit near the Detroit-Toledo corridor, would benefit from the tremendous projected population growth of southeastern Michigan in the next twenty years.

Now Carleton is ready. Building codes, zoning ordinances, subdivision regulations are in effect. There are good roads, excellent schools, recreational areas, and wide-open spaces characteristic of a fine agricultural region. Five major railroads pass through Carleton. It is near important shipping points and facilities and is the center of a network of superhighways. The fast-growing Port of Monroe, open to deep-water shipping via the St. Lawrence seaway, is within twenty minutes, truck time.

All the basic elements for well-planned future growth are found here to insure industry a good home.

Carleton is one of the many desirable communities in southeastern Michigan which have planned for industry. If you are considering expansion or relocation, let us tell you about them.

"Our program," says Vincent S. Madison, "has worked out very well for us. We have many communities, relatively small ones now, that are proceeding with long-range planning."

The Importance of Utility—Highway Liaison

By SAM HOUSTON*

Over this nation, billions of dollars are being expended annually in the acquisition, management, and transfer of real estate for use as rights of way. This dynamic activity occurs with the changes in a multitude of vital community, regional, and national improvements, and especially in connection with the construction or reconstruction of highways, flood-control projects, public utility facilities, pipelines, railroads, and other public, quasi-public, and private developmental activities. Within the area of highway construction affecting utility and other agency facilities, there is an unfortunate but seriously mounting conflict of interest. This revolves around the reasonable or unreasonable exercise of powers over the right to the continuing use of highways for the accommodation of utility facilities needed to furnish all forms of utility services to the public. The impact of this dilemma has suddenly developed along with the somewhat crash conditions under which a long-delayed and vitally needed national highway system is being constructed. Should a logical change in the course of direction heretofore taken be given more practical consideration by those in authority, a myriad of problems could be resolved overnight.

Developing Conditions

In looking back over the past forty years, we find that a transition has been taking place throughout the United States in the practices employed by highways, utilities, and other public, quasi-public, or private agencies in the acquisition and rearrangement of rights of way used for their respective facilities. These early procedures were adopted to care for the independent activities and expansion of the business of those agencies during a period of what might be termed "normal construction." As our communities expanded, about the only disruption to these initial right-of-way practices resulted from facility relocations made necessary by municipal street widening or other public improvements within cities and towns, the widening or surfacing of existing county or intercity wagon roads and bridges within states, or possibly necessary rearrangement between utility service companies for the mutual accommodation of the facilities of the other. On occasion, some individual right-of-way problems may have developed, but these were usually resolved as each problem arose. In other words, and in general, integrated planning in connection with highways never existed on any firm basis.

With the end of World War II, the nation was the possessor of a highway system that was not only inadequate prior to the war, but it had deteriorated from a minimum of wartime care and the heavy

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loads of wartime traffic. For the past fifteen years, we have witnessed a greatly increased population which has been migrating from one section of the country to another, as well as moving into the suburban areas from metropolitan cities. We have also experienced the tremendous economic development inspired initially by a pent-up accumulated war demand seeking all forms of commodities and services. One of the most significant effects these forces have had upon our highway systems resulted when automobile production began to climb sharply and highway traffic volumes found our highways woefully inadequate and hazardous.

In an attempt to cope with this mounting traffic problem, most cities, counties, and states were working hard to develop new and profound engineering concepts in highway design. These were being built into two, four, and six dual-lane, limited access, high-cost highways, freeways, and toll turnpikes to provide for an even flow of heavy traffic volumes at higher speeds with special regard to sound safety standards. But, it was soon realized that the cities, counties, and states in general would never be able to catch up with the immediate need for adequate highways, much less to provide for the future without considerably increased financial assistance such as federal aid.

Plans for a modern nation-wide network of highway arteries with built-in advanced engineering standards and safety factors to serve the entire country had been accumulating for many years. By 1947, the state highway departments and the U. S. Bureau of Public Roads, in close consultation with our defense agencies, had been working upon a number of routes which would make up a 40,000-mile interstate system. These routes were generally completed by 1955. Meanwhile, Congress and the President both called for a review of the nation's highway needs in 1954, and in July of that same year the President sent an urgent message to the governors' conference stressing the need for a greatly enlarged highway construction program.

With mounting traffic pressures, accidents, congestion, and delays apparent, the Congress after a two-year intensive study enacted the Federal-Aid Highway Act of 1956. This act not only provided for an increase in the allocation of federal-aid funds for the continuing improvement of the primary and secondary roads of the several states, but, in addition, established a highway trust out of which huge funds would be made available for the construction of a 41,000-mile highway system to be known as the National System of Interstate and Defense Highways. This system was designed to cut through the heart of metropolitan areas of population or to bypass cities. Written into this law were features which would require the control of access. This meant that every car, bus, or truck entering or leaving the interstate system would move along especially designed highway facilities channeling vehicles in and out of the through-traffic streams with safety and efficiency. This planned access would provide clover-leaves, overpasses, and underpasses, as well as ramps and interchanges to insure the safe movement of all vehicles. Since access points to and across the interstate system were to be tightly restricted, many local streets and roads intersecting the new system would be "dead-ended" at

the right-of-way line of the interstate system.

EVEN as of today, the ultimate cost of this interstate and defense system is no more than an estimate due to current inflationary trends. Initially, it was estimated to cost the federal government $25 billion. Together with the accumulation of the annual funds normally expended for highway construction by the states, plus that of federal aid, it may reasonably be estimated that the total outlay for all highway construction into the early 1970's will exceed a total of approximately $50 billion. No matter how it is measured, in miles or money, the figures are hard to grasp. During the twenty-seven years from 1916 through 1943, federal-aid highway authorizations to the states, including emergency advances, public works, and works programs, and strategic highway network funds, totaled $3 billion, as compared with $3.47 billion already apportioned under the Federal-Aid Highway Act of 1956, for the year 1959 alone.

NATIONAL LIAISON COMMITTEE
OF THE
AMERICAN RIGHT OF WAY ASSOCIATION—1934-59

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Chief right-of-way agent
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General Telephone Company of California

Allen F. Cleveland
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Illinois Division of Highways

Frank E. Randall
Superintendent of right of way
The Pacific Telephone & Telegraph Company

B. A. Towl, Jr.
Attorney, Buckeye Pipe Line Company

Harold H. Waddel
Manager of properties
American Water Works Service Company

Dan Williamson
Vice president, Transcontinental Gas Pipe Line Corporation

There is a profound need for closer liaison and integration of advance planning as between highways, utilities, and other agencies. To carry this to an accomplishment in fact, the National Board of Directors of the ARWA authorized the appointment of its National Liaison Committee. The primary objective of this committee is to work for and with all like-minded organizations toward integrated and advance planning to eliminate, in so far as reasonably possible, all right-of-way conflicts and related problems.

One of the cardinal policies of this committee clearly eliminates from its purposes, discussions having to do with the controversial subject of reimbursement to utilities for relocation costs. Liaison as a procedure involves the principles of mutual advance planning, co-operation, and co-ordination; it does not encompass reimbursement. While this committee seeks the co-operation, support, and assistance of all national highway, utility, and other affected associations and groups in this endeavor, it does not seek to speak for nor represent any organization. The National Liaison Committee of the ARWA is simply dedicated to bringing parties together for these purposes.

With a highway program of such record-breaking proportions ahead, which in turn will force a multitude of utility relocations necessary to accommodate the new interstate system, it has been quite evident that the relocation and acquisition of new rights of way for highways, utilities, and other affected agencies have grown overnight into "big business." Bertram D. Tallamy, Federal Highway Administrator for the U. S. Bureau of Public Roads, has said to the American Association of State Highway Officials that the acquisition of right of way for the Interstate and Defense Highway System alone "represents" the greatest real estate transaction in the history of the world, with its anticipated $5.5 billion cost. The impact of these dollar amounts may be somewhat visualized when it is recognized that competent New York real estate appraisers have estimated that Manhattan Island, with its improvements, is currently valued at "at least $10 billion." [1]

Legislative Background

IN the background of the legislative hearings of Congress, before the enactment of the Federal-Aid Highway Act of 1956, a long-time disagreement among highways, utilities, and other affected agencies was brought into the open. The construction of the interstate and defense system would have to be superimposed over many miles of a vast network of approximately 2.8 million miles of the right of ways of railroads, natural gas pipelines, petroleum product pipelines, electric transmission power lines, telephone and telegraph pole lines, and water and sewer lines already in place under and over the surface of this country. Who was to pay for the relocation costs of the public and private utility facilities to be displaced by this highway construction? Highway interests sought to write into this federal highway legislation provisions forbidding the use of highway funds to compensate utilities for relocations due to highway construction. Utilities just as vigorously sought to gain legal sanction for such compensation for relocation costs.

HISTORICALLY, either by constitutional provision or by express statute, some public utilities in all states have had the right to locate their facilities upon public highways.

This right, however, was generally subject to the rules and regulations of the appropriate state agency having jurisdiction over the highways of that state. Congress found, with few exceptions, that utilities would be required to pay the full cost of relocating their facilities from public rights of way. According to the best estimates of the Bureau of Public Roads in 1956, it was determined that approximately 25 per cent of the new federal-aid highway projects would necessitate the removal and relocation of utility facilities. This represented an enormous readjustment problem. The full impact of this unanticipated financial burden would fall squarely upon the public utilities and other affected agencies. The U. S. Bureau of Public Roads had had a long-standing policy of reimbursing states for payment of relocation costs to utilities in those instances where, either by contract or by the laws of that state, the state was obliged to do so.

[1] From presentation, entitled "Whose Right of Way?" of John C. Kohl, professor of civil engineering and director of the Transportation Institute, University of Michigan, to Michigan Chapter No. 7 of ARWA on May 22, 1959.

This policy of the bureau had its appeal to Congress for it was adopted as §111 of the 1956 act. It provided that whenever a state under its law, or by a contract with a utility, paid for the cost of relocation of utility facilities resulting from the construction of a federal-aid highway, federal funds could be used to reimburse that state for such costs. This would be in the same proportion that federal funds would be expended on such projects; *i.e.*, 90 per cent of relocation costs on the interstate system and 50 per cent on the primary and secondary roads. Section 111 further provided that no federal-aid funds should be allocated to any state when the payment to the utility violated state law or a contract between the utility and the state.

IMMEDIATELY after the enactment of the Federal-Aid Highway Act of 1956, many opponents of the principles of reimbursement charged that Congress had no intention that §111 should be construed by the states, the utility, or other agency interests as an invitation to seek changes in the existing state laws to add utility relocation to the costs of highway construction.

The highway interests were not only bitter in their opposition to such state statutes, but even more so to those laws which provided for reimbursement only on the interstate and defense system. Prior to the 1956 act, three states, California, Connecticut, and New Jersey, had laws providing under differing conditions for some form of reimbursement to utilities for relocation costs due to highway construction.

It should be emphasized that the matter of reimbursement to utilities upon a taking of privately owned rights of way has never been challenged. The opposition to the concept of reimbursement runs only to the relocation of utility facilities displaced by highway construction on public rights of way.[2]

WHEN we witness the tremendous amount of time, energy, and expense which is being expended on the state and national levels by highway, utility, and other groups engaged in a running conflict over legislation favorable or unfavorable to the principles of reimbursement for relocation costs, this long-time, simmering argument has all the characteristics of gaining momentum.

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[2] From the passage of this act in 1956 to June 1, 1959, bills providing for reimbursement to public utilities for relocation costs were introduced in 42 state legislatures. Such bills were enacted in 17 states. In four states—Idaho, Massachusetts, Montana, and Utah—the laws *provide reimbursement on all federal-aid highways*. Thirteen other states—Delaware, Florida, Illinois, Iowa, Maine, Minnesota, Nebraska, New Mexico, North Dakota, Oklahoma, Texas, Virginia, and Washington—*provide reimbursement only on the Interstate and Defense Highway System.*

Presently, bills are pending in the legislatures of Ohio, Massachusetts, and Pennsylvania. The Ohio bill would provide reimbursement only on the interstate and defense system. The bill in Massachusetts would repeal the reimbursement provisions of its existing law. In Pennsylvania, the bill would make the utilities move at their own expense.

Bills were vetoed in six states—Colorado, Kansas, New York (in 1957 and 1958), Pennsylvania, Rhode Island, and Wyoming. Bills died in 15 other states because of adjournment or were killed by the legislature. Those states are Alabama, Arizona, Arkansas, Georgia, Indiana, Maryland, Michigan, Mississippi, Missouri, New Hampshire, Oregon, South Dakota, Vermont, West Virginia, and Wisconsin.

The constitutionality of such laws has been questioned and litigation started in eight states—Idaho, Minnesota, Montana, New Mexico, North Dakota, Tennessee, Texas, and Utah. The highest state court in Minnesota found the state law constitutional. The supreme court of Tennessee, by a 3-to-1 decision, found its law unconstitutional, denied a petition for rehearing, and certiorari to the U. S. Supreme Court was likewise denied. The supreme court of New Mexico found the 1957 enactment unconstitutional. The Idaho supreme court voided the state law—rehearing requested.

Where Do We Go from Here?

HERE, we are engaged in the most comprehensive highway construction program ever undertaken by any country in the world. It entails the expenditure of the greatest amount of public wealth ever authorized for highway purposes. The nation has a critical need for a modern highway system. Basically, this program will require complex planning, engineering, construction, and wise administration. Many communities, counties, cities, and over 27,000 public, quasi-public, and private service utility companies are properly concerned because of the multitude of right-of-way problems foreseen. Unless the interrelationships between these groups can be harmoniously and fairly co-ordinated during the design and planning stages of this highway program on a basis of mutual good will, understanding, and co-operation, only frustration, confusion, and costly construction delays will result.

Our nation as a whole is presently in a state of great financial flux. We have all had notice from the President of cutbacks in spending, if new taxes are not provided for any new appropriations voted by Congress. The Highway Trust Fund is not receiving the highway user's tax income in sufficient amounts to sustain the present highway construction program. Costs are running considerably more than originally estimated. How the highway program will fare in this political atmosphere is anybody's guess. The important fact remains that this country will have this highway system some way. Whether it will be curtailed or its construction time extended does not in any respect alter the fact that there will still be a costly waste in outmoded right-of-way procedures.

A constructive reappraisal of this conflict of interest may be realized, if the management of most of the agencies involved would take some concerted action to resolve the present impasse. In the long run, the general public is not concerned over legal arguments or lawsuits over principles which can otherwise be adjusted in an atmosphere of co-operation, with justice to all. No matter the size of this undertaking or its complexity, whenever such serious problems arise, the public has a right to expect that leadership will be developed to resolve them. If not, public criticism and censorship will surely follow in no uncertain terms.

Recognition of Prevailing Conditions

IN the current background, it may be of interest to note the effort which has been developing nationally through the efforts of a number of public-minded organizations. It is possible that we may yet see beneficial results from the progressive adoption of integrated right-of-way pro-

cedures by all states, utilities, and other affected agencies.

For over twenty-five years there has been an organization known as the American Right of Way Association. This association is a nonpolitical, nonprofit organization which has been dedicated to a continuing educational program designed to better equip its membership in the fulfillment of their professional right-of-way obligations to their employers, whether they be the public, quasi-public, or private organizations. The technical skills required in the acquisition, management, and transfer of rights of way are manifold; they embrace the fields of appraisal, engineering, law, negotiations, public relations, property management, and public service administration. The American Right of Way Association, represented in 29 chapters and a number of club affiliates within the United States and one chapter in Canada, totals just under 6,500 in membership. These right-of-way men are actively engaged within the entire gamut of professional right-of-way activities which concern the bulk of national improvements on highways, flood-control projects, public utility construction, pipeline programs, water and sewer systems, railroads, and other similar service projects.

This association has earned an international reputation for integrity and the promotion of high ethical standards among its members to the end that each renders the full potential of service to his employer, the community, state, and nation. To accomplish these objectives, its members prescribe to a Code of Ethics based upon tangible, friendly, harmonious relationships and honest constructive public service, all bound by the principles of the "Golden Rule."

In appreciation of the developing right-of-way problems and the substantial benefits which should result through closer liaison, the American Right of Way Association for the past several years has sponsored many educational discussions and studies on the "Advantages of a Practical Liaison between Highways, Utilities, and Other Affected Agencies." This has been actively pursued in its chapter, regional, and national educational seminars. From the know-how of professional right-of-way men, plus the experience acquired from the practical operation of liaison procedures with which many of them have been so closely associated in several of our great states, the American Right of Way Association has adopted a program on which it seeks the sponsorship, encouragement, and co-operation of all like-minded organizations to work together to eliminate these unfortunate disputes by the adoption of logical and practical modern liaison procedures.

Facts and Suggestions

To illustrate the practical need for a cure to this problem, let us examine a portion of a talk, entitled "Acquisition of Right of Way for Federal Aid Highways," presented by Clifton W. Enfield, general counsel for the U. S. Bureau of Public Roads, before the third annual national seminar of the American Right of Way Association at Chicago, Illinois, on May 16, 1957:

> The bureau's study indicated that in approximately one-third of the states highway construction progress is often seriously impeded by delay in utility ad-

justments; that in another third it is occasionally impeded, and in the remaining third delays seldom occur. It was found that delay in highway construction because of utility relocation resulted principally from (1) lack of adequate advance planning and investigation, (2) lack of adequate liaison between the highway agencies and the utility companies, (3) lack of early firm commitment by highway agencies in scheduling projects for advancement to construction, (4) failure to complete plans and acquire right of way sufficiently in advance of construction, (5) lack of adequate funds, personnel, and

What Recently Happened in Boston

SINCE this article was prepared, the respective Liaison committees of the American Association of State Highway Officials and the American Right of Way Association met in joint session on October 13, 1959, in Boston, Massachusetts, during the forty-sixth annual meeting of the American Association of State Highway Officials. There was a thorough review and discussion of progress in this field over the past year by the respective committees.

As to the progressive developments noted, they were:

> The issuance by the Bureau of Public Roads of its Policy and Procedure Memorandum, PPM 20-11.1, for the purpose of encouraging at state levels advance planning needed to resolve utility and railroad adjustments.
>
> To implement intelligent and effective liaison with utilities and railroads, the Bureau of Public Roads has recently established the position of utility engineer in nine regional offices. To date, five of these positions have been filled. The AASHO/ARWA Liaison committees will make every effort to assist these regional utility engineers.
>
> The policy statement prepared by the AASHO Planning and Design Committee on "The Accommodation of Utilities on the National System of Interstate and Defense Highways" was adopted by a majority of the state highway departments. The U. S. Bureau of Public Roads, by circular memorandum, dated September 30, 1959, adopted this statement as a policy in connection with future federal-aid interstate projects.
>
> The Bureau of Public Roads in this field has allocated $10,000 for a study of highway-public utility liaison practices. These funds have been earmarked for the American Association of State Highway Officials' Liaison Committee which will be put to use in the near future.

In regard to current actions of the AASHO/ARWA Liaison committees, there were under complete review and discussion many constructive proposals and the means that would be taken to implement the principles of liaison as between highways, utilities, and other affected agencies. The positive actions taken may be summarized as follows:

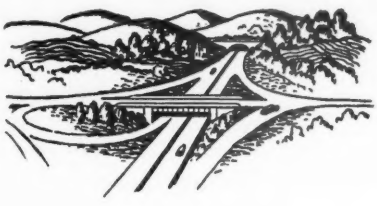
> 1. The AASHO Liaison Committee unanimously endorsed the principles of liaison as sponsored by the ARWA.
> 2. The AASHO Liaison Committee has unanimously agreed to stimulate and encourage these procedures among all of its member state highway organizations.
> 3. The ARWA Liaison Committee, with the co-operation of the national utility associations and other national organizations, will seek the stimulation and encouragement by these organizations through their state member associates to promulgate liaison procedures at state levels.
> 4. The American Right of Way Association, through its local chapters, will stimulate and encourage adoption of liaison procedures at all state levels through its local membership.
> 5. It was unanimously agreed by the AASHO/ARWA Liaison committees to meet at the next annual meeting of the American Association of State Highway Officials to review and consider progress in liaison procedures at state levels made over the ensuing year.

equipment on the part of utility companies, and (6) lack of adequate knowledge regarding location and nature of underground facilities.

IN a panel and study discussion on the subject, "Advantages of a Practical Liaison between Highways, Utilities, and Other Affected Agencies," conducted during the fourth annual national seminar of the American Right of Way Association held at San Francisco, California, in May of 1958, it was determined that whenever utilities have to be relocated:

> (1) it means in most instances the building of duplicate facilities—as the service customer or consumer by right expects to have continuous utility service; (2) it assumes the immediate ability to engineer the new project; (3) it assumes immediate availability of custom or standard materials irrespective of time delays for possible manufacture or delivery; (4) it assumes no difficulty in negotiating and securing the necessary new rights of way; (5) it assumes the necessary construction forces available; and above all else (6) it assumes the immediate ability to raise the necessary capital.

During this ARWA national seminar, speaking to the same study discussion, R. S. J. Pianezzi, assistant chief right-of-way agent for the California Division of Highways, outlined how liaison works in the state of California.[8]



INCLUDED on the same panel study in May of 1958, in giving a summary of the benefits of the liaison procedures operating in the state of California, Allan R. Stacey, vice president and manager of the Sunland-Tujunga Telephone Company of Sunland, California, in representing small utilities, had this to say:

> We need to know of changes that are coming up immediately; that is, within the next one or two years. We also need to know of changes that are likely in the long range. For example, at Sunland we have been aware for approximately five years of a programed widening of our major boulevard. Consequently, five years ago we hung our telephone cable on the field side of the poles paralleling this highway and therefore will reduce the cost of transfer when that becomes necessary. That transfer is now in our 1959 budget.

Prior to attending that meeting Stacey

[8] A brief and partial extract of his explanation is as follows:

. . . All major utility companies, as well as railroads, oil companies, and public agencies, are informed of scheduled . . . projects through . . . information letters. In addition to information concerning future projects, data are included on advertised projects as well as contracts recently awarded. As soon as preliminary highway plans have been sufficiently developed, copies are furnished the utility owner for use in making preliminary studies of necessary utility facility relocations.

After a review of preliminary design plans by the utility owner, meetings are arranged with utility owner representatives to discuss the extent of relocation work involved. Joint meetings are arranged with highway design engineers where necessary to determine the most economical location for all parties concerned and to work out a mutually acceptable plan. Utility owners delineate their proposed relocation plan on state's preliminary highway layout sheets. These plans are returned for review and approval by the state prior to preparation of final relocation plan by the utilities.

made personal contact with more than a dozen of the telephone utilities operating in the state of California and asked whether they were encountering difficulty in liaison regarding the highway program. Each company contacted, ranging in size from almost one million telephones down to 500 telephones, reported that it was being given adequate information well in advance of required relocation. Here is a brief description by Stacey on six steps taken in California for liaison:

> (1) The state develops a five-year planning program for highways; (2) in advance of final selection of the route for a highway change a public meeting is held and the state bureau notifies each of the utilities involved; (3) a selected route is submitted to city councils and county supervisory bodies for their comments and approval. Following this the route is submitted to the highway commission for adoption. These actions occur three to four years before construction; (4) the state bureau gives the utility a sketch showing the state's ideas of the necessary changes of routing; (5) the utility makes its own suggestions; (6) a written agreement is made containing the changes and allocating the costs.

In the state of Michigan, where liaison has been recently adopted as a policy, Richard H. Taylor, the director of real estate and right of way for The Detroit Edison Company, Detroit, Michigan, outlined the initial steps which have been undertaken:

> The state highway department has appointed a utility engineer who will co-ordinate all contacts between the various departments of the state highway and all public utilities relative to the relocation of facilities necessitated by widening, relocation, or new road construction. Each major utility has appointed a utility co-ordinator to co-ordinate the flow of plans and schedules between the various departments of the utility and the state highway utility engineer. All requests for information from the utility to the highway department will be channeled through the co-ordinator who will arrange for the necessary negotiation on the problem in question with the right man in the various departments of the state highway department. The utility co-ordinator will follow the individual jobs and be responsible for the necessary co-ordination and scheduling between the area engineers of both the utility and the state highway department at the job levels. The highway department has furnished the utilities with their advance program for five years. Preliminary plans will be discussed in the field with utilities involved at least six months in advance of letting of bids. However, it is hoped this lead time can be increased even beyond one to two years. Any problems arising outside of normal, established routine shall be referred to the co-ordinator for negotiation with the proper department within the state highway department as designated by the highway utility engineer. In the short time this arrangement has been in progress, everyone feels that it is providing for a better flow of information, a better understanding of mutual problems, will result in fewer delays in relocations of utility facilities, and, in many instances, less expensive relocation costs to both the state and the

utility. This will mean, in the end, substantial savings to the taxpayer and the utility ratepayer who is one and the same person.

GEORGE M. WILLIAMS, assistant commissioner for engineering of the U. S. Bureau of Public Roads, with reference to the practical advantages of liaison at the ARWA national seminar in May of 1958, stated:

> Accordingly, it is both necessary and desirable that the plans of any utility for expansion or change that will affect highway interests, and that the plans of any highway agency that will affect any utility, be made known to the other affected interest as soon as possible in order that there may be time for coordination of work, establishment of work schedules, and savings in cost to the public.
>
> . . . One of the most important and effective steps consistently taken in those states that have successfully solved the problem of utility adjustments is to arrange for conferences with representatives of the utility companies as soon as the location and the plans for a highway project have been developed sufficiently to indicate approximately what utility adjustments will be required. As a result of such conferences, the utility companies are able to make detailed studies of the extent, nature, and cost of the work to be done, to budget and allot funds for the work, to acquire any additional rights of way required, to obtain the necessary materials, and to schedule the operations of its crews to perform the work at the time it should be done to fit highway construction plans.
>
> The bureau has consistently urged the state highway departments to adopt and practice the procedure of advance scheduling of highway projects, the establishment of close liaison between the several interests involved, the selection of highway locations that will best serve the highway needs without unduly affecting other interests or needs, and to design to accommodate the foreseeable long-range highway needs.
>
> Liaison can be either friendly and co-operative or it can be forced. It should be friendly and co-operative, and if of that nature, will produce the best results. The state highway departments have the opportunity now to do long-range planning and to develop advance construction schedules for projects on the interstate system.

SPEAKING on the same occasion in 1958, A. E. Johnson, executive secretary of the American Association of State Highway Officials, made some sound observations from long experience and offered valuable suggestions for consideration, when he stated:

> What is to be gained by the highway administrator in providing effective liaison with the utilities? The desirable and ultimate result is the completion of highway projects with no delays occurring because of utility facilities interfering with road construction. If such a result could be accomplished it would mean lower bid prices and the elimination of claims against the state on the part of the contractor for delays and added costs.
>
> The results from the highway point of view are indeed attractive and worthy of effort.

Let us review the desirable results from effective liaison from the utility point of view. It would make possible for the utility to budget, to plan the work, to acquire the necessary materials, and to schedule the adjustment or removal of facilities at a time convenient and efficient for its work crews in order that the entire operation might be at a minimum of cost and with a minimum of inconvenience to the public. If this result could be achieved on the part of the utility companies, it would appear to be worthy of the effort required to establish the necessary relationship with the highway officials.

In my opinion, people are really more important in co-operative liaison than the type of organization and procedure that may be officially established. Nearly any arrangement works well when co-operative and objective people with sincerity of purpose are involved. Nothing works when the reverse is the case. Uniformity of practice from state to state to a certain degree, however, as to the type of organization and procedure that is established for providing liaison with the utility companies, is extremely desirable, just as it is for highway design, highway marking, or traffic rules and regulations.

A representative group of state highway administrators from the various sections of this country, working with a small number of utility officials representing the various utility groups and selected so that they could speak for their respective industries, could form a joint committee to explore and spotlight these problems and to recommend solutions and procedures to effect uniform, efficient, and amiable liaison. Such action might well be the outgrowth of this very panel discussion. Personally, I believe that the need is evident and the highway administrator, the utility official, and the public would be the beneficiaries.

In general, the highway departments, utilities, and other affected groups were not prepared initially to handle the full impact of the highway construction requirements as contemplated with the enactment of the 1956 act. There were many reasons for this. But, principally, they were not prepared due to the quite sudden action of Congress.

It is no secret that most highway departments in 1956 found themselves woefully understaffed in so far as professional and otherwise experienced help was concerned. An employment problem was amplified because highway wage schedules were far below industrial levels. There was also a competition between all employers in industry and other construction fields over the hiring of qualified professional help during this period. Although this condition has been corrected

by some increased wage scales, it may not be altogether satisfactory today.

Simultaneously, utility budgets on new construction while, in general, normally well-considered and planned were not geared to the new program. It is a fact that facility relocations and reconstruction costs in connection with road widening prior to 1956 represented only minor costs for they had represented less than one per cent of the average annual budget. Generally, few utilities or other related groups ever enjoyed close relationships with state highway departments for not many highway departments viewed utility relocations with much concern. For these cogent reasons, in most instances the utilities had to deal with road contractors as best as they could to ascertain what relocation problems might possibly confront them. It is suspected that many utility people considered relocations in connection with past highway construction more an annoyance than as any great consequence.

EVERY utility organization and other service agency recognizes and appreciates the extreme difficulty which faces highway departments in selecting final route plans. Confronted as they are with all of the differing interests represented by citizens' groups, city officials, chambers of commerce, those representing business establishments to be deprived of access and alleging economic losses, in addition to social and political pressures, none the less, the highway departments accomplish a highly commendable and efficient public relations job. It is, however, during this interval, that utility groups should be informed and given the opportunity to know how they will be affected.

They are confronted with many more serious relocation situations representing much more dollarwise considerations than at any time in the past. Depending upon how they are affected, they too must keep ahead of engineering, acquisition of materials, acquisition of new rights of way, and plan for the actual construction at the new location and remove the old.

Intermixed, along this chain of events, there have been the fear and possibility of land speculation if the location of a route was disclosed before the final approval. Situations of this nature have occurred in some states and have made a number of highway officials doubly cautious as a result of the accompanying publicity.

HOWEVER, any form of a business is a serious undertaking in this respect. Most utilities are dealing day in and day out on a basis of integrity and good will with many industries and other governmental agencies.

Similar relationships can be just as soundly established and maintained among highways, utilities, and other related groups. To some extent, fears of this nature should be unfounded for in those states where a sound engineering and right-of-way program (dissemination of data through public meetings and press releases; uniform right-of-way appraisal and negotiation practices based on payment of full market value) has been adopted, such situations should never arise. One of the basic concepts to the establishment of a liaison among highways, utilities, and other affected agencies is in the development of mutual confidence, integrity, and good will.

National Liaison Committee ARWA

THERE is, therefore, an abundance of evidence resulting from the educational discussions, studies, and background which heretofore have been assembled by the membership of the American Right of Way Association, together with the capable assistance of and contributions of many other outstanding professional state and federal authorities dealing with the advantages of liaison. It is crystal clear that there is a profound need for closer liaison and integration of advance planning as among highways, utilities, and other agencies. To effectively carry these efforts to an accomplishment in fact, the national board of directors of the ARWA authorized the appointment of its National Liaison Committee in May of 1958. The primary objective of this committee has been to work for and with all like-minded organizations toward integrated and advance planning to eliminate in so far as reasonably possible all right-of-way conflicts and related problems.

THE National Liaison Committee of the ARWA is composed of experienced right-of-way men who are professionally engaged throughout this nation in the various highway departments, the utility industries, and other comparable service agencies. **One of the cardinal policies of this committee clearly eliminates from its purposes, any discussions having to do with the controversial subject of reimbursement to utilities for relocation costs.** It should be understood that liaison, as a procedure, involves the principles of mutual advance planning, co-operation, and co-ordination; it does not encompass reimbursement.

ANOTHER policy of this National Committee should be equally well-stated. That is, that while it seeks the co-operation, support, and assistance of all national highway, utility, and other affected associations and groups in this endeavor, it does not seek to speak for nor represent any organization. The National Liaison Committee of the American Right of Way Association is simply dedicated to bringing parties together for the purpose of formulating logical and practical right-of-way procedures which will be effectuated by men of good will.

In the natural order of events members of the National Liaison Committee of the American Right of Way Association first sought the understanding and co-operation of their respective employer organizations in recognition of the purposes and objectives of this committee. These objectives were, of course, made known to the almost 6,500 members of the ARWA. This form of approach was a thoroughgoing teamwork operation and has spread throughout the nation to the highway, utility, and other agency national associations and groups.

Liaison Committee AASHO

AMONG the very first national organizations to lend interest and encouragement to this proposal of the ARWA National Liaison Committee were several subcommittees of the American Association of State Highway Officials. AASHO has for over forty-five years fostered the development, operation, and maintenance of a nation-wide integrated system of highways to adequately serve the trans-

portation needs of our country. Through this association the officials of states, territories, the District of Columbia, and the U. S. Bureau of Public Roads pledge their co-operation to develop and improve the administration, design, construction, and maintenance of highways, to study all problems connected with highway transport, to promote needed highway legislation, to develop technical administration, highway operation, standards and policies, and to co-operate with other agencies in the consideration of highway problems.

Pursuant to a cordial invitation extended to the American Right of Way Association by the Right of Way and Legal Affairs Committees of the American Association of State Highway Officials to present the merits of its liaison proposal, the national chairman of the American Right of Way Association representing its National Liaison Committee made such a presentation during a joint session of the above committees at the forty-fourth annual meeting of AASHO held in San Francisco, California, in December, 1958. Thereafter, these committees of AASHO approved by joint resolution the adoption of the principles of *the following liaison proposal* and recommended it to the governing body of AASHO, its Executive Committee, on December 2, 1958.

BRIEFLY, it was recommended that the need for a joint liaison committee of highway and utility representatives was clearly apparent; that such a joint committee be created by the Executive Committee of AASHO with the assistance of the American Right of Way Association; and further, in view of the complexity of the problems involved, that the liaison committee be directed to sponsor, at the earliest possible time after its formation, a study that would assemble and evaluate present administrative practices now current, both on the highway and utility side, with respect to dealing with highway improvement involving utility relocation and other matters of mutual interest, and to make recommendations concerning the improvement of existing practices on such matters.

The Executive Committee of AASHO subsequently approved this joint resolution upon the condition that there would be (1) no discussions concerning the geometric design of highways, and (2) no discussions concerning reimbursement to utilities for relocation costs. Suffice to say, these conditions were never a part of the principles underlying the "liaison proposal" of the National Liaison Committee of the American Right of Way Association which were heretofore outlined.

THIS encouraging action on the part of the American Association of State Highway Officials represents a great step forward which offers a possible way to cut through the barriers of complexity, misunderstanding, and frustrations that have existed far too long. On April 14, 1959, the executive secretary of AASHO, A. E. Johnson, acting under instruction from the president of AASHO, R. R. Bartelsmeyer, appointed its Liaison Committee to meet with the National Liaison Committee of the ARWA whereby the National Liaison Committee of the ARWA will serve as a liaison between AASHO and the utility groups on a basis of advanced planning practices. Unfortunately, due to a series of state official travel restrictions these

respective committees have been unable to hold an initial meeting as of this date; however, a joint meeting was held in Boston, Massachusetts on October 13, 1959, where it was felt many constructive steps would be placed into progressive action.[4] (See page 852 for digest of results.)

Practical Liaison Demonstrated

PARTICULAR emphasis is made to the recent co-operative and constructive assistance rendered by the AASHO Planning and Design Committee to utilities and other affected groups in the formulation of a statement on "A Policy on the Accommodation of Utilities on the National System of Interstate and Defense Highways." The action of this committee vividly illustrates how all of the elements of liaison, such as the correlation of constructive ideas and co-operation, can be effectively exercised on a national level. The chairman of the AASHO Committee on Planning and Design was W. A. Bugge, director of highways for the state of Washington. Its secretary was Joseph Barnett, engineer for the U. S. Bureau of Public Roads. The remaining membership of eighteen were representatives of the same number of state highway offices throughout the country.

THIS statement of policy to be formulated by the AASHO Planning and Design Committee would have eventually established the conditions under which utilities and other affected agencies in general would be permitted to use the interstate and defense highway system right of way.

Because of the very nature of the 41,000 miles of the interstate and defense highway system involving the safety of the traveling public, utility facilities would be barred generally from longitudinal occupation or crossings except under specific conditions and at certain locations. Initial drafts of a proposed policy came to the attention of the utilities which immediately presented many grave engineering problems and serious questions as to how the utility serving groups would be able to render adequate public services without the expenditure of excessive and unreasonable costs. In some instances, statements used to formulate the proposed policy presented problems as to interpretation. All of these difficulties simply meant that the highway engineers and engineers of the differing utility groups should hold working conferences in order to reconcile these problems and to anticipate if possible future problems.

ONCE a policy statement was finally developed and recommended by the Policy and Design Committee to the Executive Committee of AASHO for ap-

[4] The American Association of State Highway Officials' Liaison Committee is composed of the following officials:

D. C. Greer, chairman
State highway engineer for Texas

David R. Levin, chief
Land Studies Section
U. S. Bureau of Public Roads

C. W. Enfield, general counsel
U. S. Bureau of Public Roads

Joseph Barnett, engineer
U. S. Bureau of Public Roads

Norman M. Pritchett, chief engineer
Maryland State Roads Commission

R. E. Reed, chief counsel
Division of Contracts and Rights of Way
California Department of Public Works

W. A. Bugge, director of highways
Washington State Highway Commission

G. S. Paxson, assistant state highway engineer
Oregon State Highway Department

John H. Swanberg, chief engineer
Minnesota State Highway Department

proval, it then would be submitted to the member states of AASHO for their final approval. Upon a majority approval by the state highway departments, this policy would then be referred to the U. S. Bureau of Public Roads. There, the bureau would in all likelihood, as a member of AASHO, adopt this policy as a part of its formal rules and regulations governing the future accommodation of utilities upon the Interstate and defense highways system.

The serious concern of the national utility groups was made known to the Policy and Design Committee of AASHO by the National Liaison Committee of the ARWA. It was suggested that in a spirit of co-operation the engineers for the national utility associations and related groups should be called into conferences to ascertain their problems and reconcile, in so far as possible, any existing differences concerning this policy statement. This suggestion was readily adopted by the Policy and Design Committee of AASHO. Thereafter, practically all of the national utility associations and related groups (representing in effect approximately 27,000 utility companies both public and private) were invited[5] to a series of conferences which were held at various locations over the country and extending over a period of several months.

THE AASHO Policy and Design Committee, after this series of conferences, revised its initially proposed statement to reflect, in so far as possible, and compatible with its own basic responsibilities for highway construction, many of the views expressed by the national utility groups and associations. While the reconciliation of all views was not entirely possible in the revised statement, the policy as a whole reasonably expresses and attempts to compromise whenever possible divergent opinions. Furthermore, it indicates that, should individual costly problems develop in the future that are acute, even those may be reviewed on a case-by-case basis.

IT is a matter of common knowledge that many of the national utility groups and associations expressed their appreciation for the co-operation and opportunity afforded them by the Policy and Design Committee of AASHO to confer with them directly.

With a series of appreciative responses coming to the attention of the ARWA National Liaison Committee, the national chairman of the American Right of Way Association, under date of June 26, 1959, wrote W. A. Bugge, chairman of the Policy and Design Committee of AASHO, relaying the sentiments of these expressions and highly commending the action of his committee in taking the progressive step it did in establishing an effective and working liaison with the national utility groups and associations. Under date of July 1, 1959, W. A. Bugge, in reply to the national chairman of the ARWA, expressed appreciation for the assistance rendered by the ARWA in this undertaking and in other related fields. Thus, we see how liaison can work.

[5] National associations and groups invited—American Gas Association, American Water Works Association, Edison Electric Institute, National Association of Electric Companies, American Public Power Association, National Rural Electric Cooperative Association, American Telephone and Telegraph Company, United States Independent Telephone Association, National Telephone Cooperative Association, American Petroleum Institute, Committee for Oil Pipelines, American Public Works Association, and the Federation of Sewage and Industrial Wastes Association.

Recent Discussions and Press Articles

No one could venture the thought that this subject is new. There can be no doubt that it has been discussed and restated in many thousands of words. However, in recent months, because the problem has assumed such monumental proportions, much more is being brought forth.

Many pertinent articles of merit have appeared in professional and industrial publications.[6] Many symposiums have been conducted to provide for candid exchange of views.[7] In July, 1958, a brochure was published by the American Right of Way Association giving the complete transcript of the panel discussion and study on the "Advantages of a Practical Liaison between Highways, Utilities, and Other Affected Agencies," conducted during its fourth annual national seminar at San Francisco, California, in May of 1958.

The latter was mailed on July 14, 1958, to all chief administrative officers and chief right-of-way engineers of all state highway departments, officials of the U. S. Bureau of Public Roads, utility companies, and many other agencies.

There has recently appeared an economic study, entitled "Electric Utility Nonuser Benefits from Oregon Highways." This technical analysis was prepared by Professors H. T. Koplin and D. A. Watson of the University of Oregon.

It is understood this study was prepared in co-operation with the Oregon State Highway Commission and the U. S. Bureau of Public Roads.

In reporting on this study, Public Utilities Fortnightly, in the August 27, 1959, issue at page 376, in part comments:

> The evidence examined by the professors indicates that the cost of having utility lines on the highway is "virtually negligible" in most cases. This is of course true, providing the utilities bear the cost of relocation should such moving of lines become a necessity.
>
> It is noted that since public utilities do derive benefits from locating poles on highways, there is the possibility that some sort of tax should be levied by the state. It is concluded, however, that such a tax would not be conducive to efficiency. Even a tax which would be greatly below average benefits derived would tend to drive off some utility lines.
>
> Regarding the subject of relocation of lines, the report indicates that it would be desirable to charge such costs to both the public utilities and the highway departments in order *to encourage advance planning and the most efficient original placement of highways and utility lines.* (Italics supplied.)

[6] Public Utilities Fortnightly, July 17, 1958, issue, article entitled "What Can Be Done about the Right-of-way Problem?" by M. C. Westrate, staff consulting engineer, Commonwealth Associates, Inc., Jackson, Michigan, November 20, 1958, issue of Public Utilities Fortnightly, under the title "Wanted . . . Practical Liaison between Utilities and Highway Authorities," reporting discussion before a regional meeting of the National Association of Railroad and Utilities Commissioners. *Electrical World,* June 8, 1959, issue, under editorial comment, entitled "Joint Committee Would Ease Relocation Problems." *Electrical World,* June 15, 1959, issue, under "Deadline on Relocation Problems" and "One Answer, Better Liaison and Planning." *Right of Way,* official publication of American Right of Way Association.

[7] Chapter, regional, and national meeting of ARWA, forty-fourth annual meeting, December, 1958, American Association of State Highway Officials, and right-of-way seminars held jointly with the University of Ohio, October, 1958, and the University of Alabama, January, 1959, and the American Right of Way Association.

Conclusions and Solution

HIGHWAYS, utilities, and other public service agencies represent the man-made devices which stretch over the surface of this nation to serve the public. Therefore, all are engaged in pursuits involving public service. All have an equal obligation to provide the best possible service at the lowest possible cost to the public.

The practical advantages of liaison based upon mutual advance planning, co-ordination, and co-operation can meet these public obligations. It is a procedure which should be adopted and pursued with vigor and determination to see that it is firmly established.

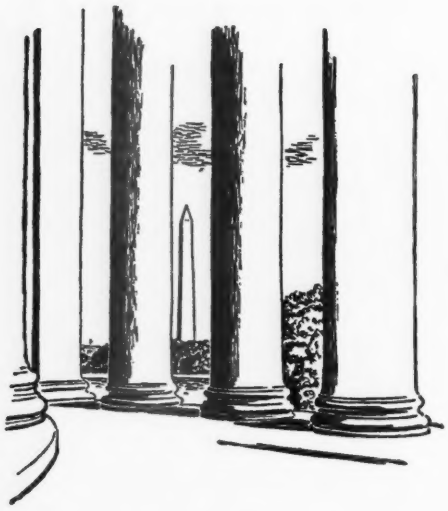
MANY of these problems arise out of the age-old complaint of all right-of-way men within highway organizations, the utilities, and other affected agencies; *i.e.*, that the "powers that be" want to advertise a contract immediately upon completion of the final construction plans. It is appreciated that under possible critical personnel shortages in some highway agencies, the engineering departments are often reluctant to spend time in developing plans for future highways and may be just able to keep abreast of currently budgeted construction projects. But, it should appear that with alert and progressive leadership on all sides, it is possible to schedule sufficient lead time between the final completion of plans and advertising which would permit an orderly acquisition of right of way and to permit utilities or other affected agencies to relocate their facilities and resolve the other serious right-of-way problems with which they may be confronted.

MOST any form of liaison would require no change in existing state law. It is something that can be established overnight by administrative practice or procedure by men of good will.

All of the following is possible:

1. The adoption of a procedure for mutual advanced planning, co-ordination, and co-operation on the part of all highways, utilities, and other affected agencies.
2. The appointment of liaison specialists or co-ordinators by highways, utilities, and other affected agencies with adequate authority to clear all problems on a mutually acceptable pattern.
3. Lay down a mutually acceptable basis for this co-operation in the form of written ground rules or procedures.
   a. One of the cardinal rules should be that all parties would keep each other advised from the time a project is first planned, then through the various major scheduled steps until final completion.
   b. Schedule a reasonable length of time for utility adjustments after completion of final plans and before contract is awarded for construction.

This procedure could (1) minimize conflicts and relocation delays which is, after all, of primary benefit to the highway department; and (2) it could tangibly reduce costs in millions of dollars, regardless of who pays the bill—the taxpayer or the ratepayer—or both.



Washington and the Utilities

McCone on Russian Atomic Power

CHAIRMAN McCone of the Atomic Energy Commission, back from a tour of the Soviet Union, has high praise for the atomic energy program there. But he does not see the Reds ahead of us in this area by any means. He said at a news conference in Washington, D. C., on October 27th that "the Soviets are carrying on a high-level effort . . . have men of considerable competence . . . and get things done in a remarkably short time."

The position of the United States is still "secure" in the types of atomic energy work seen by the team of five top AEC scientists he took with him, McCone added. In the one-hour session, the AEC chairman disclosed what appeared to be a new development in the current Geneva negotiations on a nuclear test ban. He said the Soviet Union had agreed to the adding of a provision which would permit the use of nuclear explosives for peaceful purposes.

After the news conference, AEC and State Department officials said that the Russians, despite their objections in public, have agreed "in principle" to the allowing of nuclear bombs for peaceful purposes. No details have been worked out and the matter will not be discussed until the major issues now pending have been resolved, they said. But, they added, the Russians indicate they will demand parity, explosion for explosion, and will also ask that each application be approved by the international control commission in order to prevent the surreptitious development of new weapons.

MCCONE gave an illustration of how the Reds can cut red tape. He pointed out that they had designed and built their huge "Ogra" machine in ten months. Ogra is the experimental device with which the Russians are attempting to harness the H-bomb reaction to produce useful power. In contrast, the United States is taking two and a half years to produce a somewhat similar machine. He described the Russian achievement as a "remarkable performance." The Russians have designed and built a fast-neutron reactor in a year's time, the AEC chairman added, "which we also thought a remarkable job."

McCone said that there is something

inherent in a democracy and in the budget process which slows things up. Ways of cutting our lead time to a minimum must be found, he added. When a reporter asked what happened to the big lead the AEC said it had in this field last year, McCone said the position of the United States was "secure" in the development of nuclear reactors, high-energy physics, and controlled thermonuclear fusion research.

A TRIO of other American atomic officials who made the tour of Russia with McCone reported that the Soviets are successfully operating a small power station which they expect will produce one and a half times more nuclear fuel than it consumes. Dr. Alvin Weinberg, director of the Oak Ridge National Laboratory, said he believes the Russians are "optimistic" in their expectations. But he said the output of by-products fuel may be one and a quarter times the amount consumed. Atomic Energy Commissioner John H. Williams, Dr. Frank K. Tippmann, AEC director of reactor development, and Weinberg held a news conference to describe their Soviet trip.

Williams said the Soviets are on a par with the United States in peaceful applications of the atom, and in attempts to harness the energy of the H-bomb. He said America is ahead in quantity and quality of high-power atom smashers. A party of Russian atomic officials, led by Professor V. S. Emelyanov, were scheduled to make a reciprocal tour of U. S. nuclear installations from November 3rd to November 15th. McCone and Emelyanov will then discuss proposals for speeding exchanges of atomic information and for co-ordinating programs in the peacetime nuclear fields.

At Obninsk, where the Russians set up their first atomic power station, they have now completed a second atomic generator that Tippmann said has been operating successfully since last January 1st. Like the first, the second station generates 5,000 kilowatts of electricity—enough for a town of about 10,000 people. The officials expressed special interest in the second station because it is a "fast breeder"—that is, it was designed to produce more fuel than it consumes—and because it uses plutonium as a fuel. All American power reactors so far use uranium fuel.

In addition, the Russians are using both plutonium and uranium in a simple form containing oxygen, whereas the American fuel is mixed with other metals. Weinberg said this country has experimented with the simple forms, called "plutonium oxide" and "uranium oxide," and may use them later. The scientists said it is uncertain whether the Russian-type fuel will prove cheaper in the long run.

Seeks Snake River License

THE Federal Power Commission is being urged by Pacific Northwest Power Company to schedule action on its application for a license to build the high Mountain Sheep dam in the Middle Snake river. But FPC officials say they are so loaded with other hydroelectric controversies they might not get to the Mountain Sheep case for another year.

The company recently filed amendments to its high Mountain Sheep dam application to make it conform to the recommendations of the Corps of Engineers' proposed project for that stretch of the river. The power company now proposes to build a dam about 690 feet high, with an ultimate generating capacity of 1,750,000 kilowatts at a cost of $212 million.

An FPC spokesman said that a hearing would be held this month on the Round Butte dam proposal of Portland General Electric Company; that Idaho Power Company wants hearings on proposals to amend its fish passage scheme for its dams in the Hell's Canyon stretch of the river; that hearings have been in progress for months over several rival projects on the Pend Oreille river in Washington state, not to mention cases in other sections of the country.

The first step will be for FPC to give public notice that it has received the completed application. This will afford the public, the states, and federal agencies an opportunity to submit comments or ask to intervene. The National Hells Canyon Association, which already has filed some preliminary motions in this case at the FPC, may intervene. This is the group which fought Idaho Power Company in the Hell's Canyon case and lost in its efforts to block the utility from building low dams in that area. The association now is more favorably disposed toward the proposed Nez Perce dam, just below the confluence of the Salmon and Snake rivers, it was reported.

THE FPC set December 4th as the final day for the filing of protests against the application. In January, 1958, the FPC rejected Pacific's proposal to build two small dams for power only in the same area. Instead, the commission favored a single multipurpose high dam.

Pacific's proposed 690-foot high dam would form a reservoir extending 58½ miles up the Snake river to the low Hell's Canyon development of Idaho Power Company. The company estimates initial generating capacity at 875,000 kilowatts and ultimate capacity at 1,750,000 kilowatts. The company plans to operate the project in co-ordination with the Northwest Power Pool and will deliver the power to the systems of the organizing companies for distribution to their customers. Pacific Northwest was organized by four companies—Montana Power Company, Butte; Washington Water Power Company, Spokane; Pacific Power & Light Company and Portland General Electric Company, both of Portland, Oregon.

FPC Gas Developments

A TEXAS geologist defended gas reserve figures he submitted to the FPC for the Massena-Ogdensburg, New York, natural gas case. Gladstone Stewart, a gas reserve expert from Dallas, last month testified at an FPC hearing under cross-examination that his estimates were based on lengthy study. He repeated a statement made earlier in the hearing that the St. Lawrence Gas Company, Inc., of Ogdensburg could get enough Canadian gas to supply customers in the area for at least sixteen years.

St. Lawrence seeks permission to pump gas from Trans-Canada Pipe Lines, Ltd., into 17 upstate New York communities. St. Lawrence would connect pipelines to Trans-Canada Pipe Lines. Stewart testified that the Canadian firm has 7.4 trillion cubic feet of natural gas available. The expert said that if service started next October 1st, there would be enough gas for almost fifteen years for all of Trans-Canada's customers.

Another engineer testified before the FPC that there would be a very slight shortage of Canadian natural gas deliverable to upstate New York homes if all of Canada were hit by an intense cold wave. (See, also, page 881.)

Financial News and Comment

By OWEN ELY

How to Appraise Utility Growth Stocks

THE latter stages of the big bull market have been built around the popular craze for "growth" stocks. The idea is not new — the same idea prevailed in the 1920's, when utility price-earnings ratios reached fantastic levels for many issues. *Fortune* magazine last April ran a typical story on "Those Delicious Growth Stocks." The *Magazine of Wall Street* recently discussed "Growth Stocks after a Decade of Performance," and a Park avenue service has started a $75-a-year bulletin tabulating growth stocks. *The New York Times* of October 25th discussed the methods used by three top Wall Street authorities in appraising these stocks.

We are interested here specifically in utility growth stocks. Despite the general stability of the industry, many earnings irregularities develop. A stock may build up a reputation over four or five years as a growth stock, only to lose it (marketwise) after a slump in earnings. Other growth stocks may report temporary declines in earnings but still retain relatively high prices and P-E ratios because investors expect that earnings will soon "bounce back." However, two years' poor earnings are usually enough to take the romance out of a growth issue.

TED LOCKE of Goodbody & Co. wrote a lengthy report on "Growth as a Guide to Value in Electric Utility Common Stocks" in that company's September, 1959, *Monthly Letter*. Mr. Locke points out that growth in the industry itself has been steady and consistent because electricity has become more essential than any other product we use. He states:

> As a laborsaving device—as a provider of more and more comforts in the home, more efficiency in the store or office, and much greater opportunity for increased productivity in the factory — nothing exceeds the benefits of electric power. The major reason for the industry's strong, persistent expansion is the invention and development of new appliances requiring the use of electric power. As people become accustomed to using these appliances, they cannot get along without them. There is little chance of a saturation or even any im-

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portant slowing down in the need for electric power.

However, Mr. Locke points out that even in an area enjoying rapid growth in population and industry, some companies "have shown a discouraging inability to develop *per share* earnings at all commensurate with the increase in revenues or plant account." He attributes this to poor management (especially in the field of financial policy), as well as bad regulatory climate. Accounting practices with respect to (a) credits for interest during construction and (b) treatment of liberalized depreciation also lead to irregularities in reported earnings. Higher money rates are a current handicap but can be offset by rate increases, he points out.

OBVIOUSLY, the rate of growth in share earnings has much to do with the current market appraisal of growth utilities as reflected in the price-earnings ratio. This is most obvious in the case of Florida Power & Light, which has had large, consistent earnings gains and hence sells at the highest P-E ratio. The accompanying table of averages has been compiled from the tabulation on electric utility stocks which appears monthly in this department. They seem to indicate that under present market conditions the basic price-earnings ratio (with only slight growth) is 15, equivalent to an earnings-price ratio of 6.67 per cent; the latter figure, with a 70 per cent dividend pay-out, is equivalent to a basic yield of 4.67 per cent. While the trend is not too consistent, a rule-of-thumb direction for the busy speculator might be to add half of the average five-year increase in earnings to the basic P-E ratio of 15. On this basis a stock with an average increase in earnings of 10 should sell at 20 times earnings; and one with an increase of 18, at 24 times earnings.

However, it must be emphasized that there are other factors which the more thorough student should also apply, such as (a) dividend pay-out, (b) the current increase in earnings (other than one resulting from a rate increase), (c) the accounting methods used by the individual utility, (d) the outlook for future growth in so far as this can be measured by construction plans and projections of kilowatt-hour output, (e) the regulatory atmosphere and outlook, etc.

ANOTHER interesting point of view is suggested by Hugh Pastoriza, utility analyst for Coffin & Burr, who states:

> Today, the market is much more aware of growth possibilities and for many stocks, those possibilities are felt to outweigh by far the probable declines. Such stocks have been marked up in the market to a point where the current yield is meaningless as an index to the quality of the security. . . . Any attempt at appraising a growth situation must be based on assumptions as to the future

DEGREE OF CORRELATION BETWEEN P-E RATIO AND RATE OF INCREASE IN SHARE EARNINGS

Number of Stocks	*Average Increase In Share Earnings 1953-58*	*Average Price-Earnings Ratio*
6	1%	15
8	2	15
20	3	16
10	4	14
18	5	16
16	6	17
11	7	18
9	8	20
11	9	19
4	10	18
3	11	20
—	12	—
3	13	19
—	14	—
2	15	20
1	16	19
—	17	—
1	18	25

rate of growth and the duration of this growth. The valuation will then be similar to that of a bond; it would consist of finding the present value of the growing dividends up to the end of the period of growth, and the present value of the constant dividend thereafter.

Mr. Pastoriza's method of analysis considers three different methods by which to compare growth stocks, but in view of our limited space only one will be discussed here — comparison of the "Yield to Maturity" based on a growth period of ten years, an 80 per cent dividend pay-out thereafter, etc. For thirteen companies for which comparisons were made, yields to maturity ranged between 8.1 per cent and 5.2 per cent; any yield less than 6.4 per cent would not seem worth considering, he indicated, because the increased market risk (as compared with the yield on a senior security) would make the stock unattractive. Excluding the three companies with lower yields, the ten remaining companies had an average current yield of 3.7 per cent and an average yield to maturity of 7.2 per cent. The latter was composed almost equally of (a) current return and (b) discounted future increases in dividends.

Mr. Pastoriza's study opens up an interesting new field for mathematical study of growth stocks by sophisticated investors and analysts. Unfortunately the speculative public will doubtless continue to be guided more by rumors and tips, as in the past.

Senior Financing 5.22 Per Cent

In the quarter ended September 30th utility companies marketed 32 long-term debt issues at an average net cost to the companies of 5.1 per cent. Three of these were debenture issues (Bell system) and the remainder mortgage bonds. Eight of the issues were sold privately to institutional investors. There was little preferred stock financing — only five issues with an average net cost to the companies of 5.6 per cent. The figures are based on the records compiled by Ebasco Services Incorporated.

In the August 13th issue, page 291, similar figures were given as follows: 46 bond offerings in the first quarter cost 4.94 per cent, and in the second quarter 33 offerings cost 4.96 per cent. In the first quarter preferred stocks showed an average cost of 5.50 per cent and in the second quarter 5.41 per cent. The weighted cost for senior money was 5.06 per cent in the second quarter, and in the third quarter the figure works out at 5.22 per cent.

New financing has been considerably smaller in amount in the first nine months than last year, according to Ebasco Services. Electric utility financing was down 27 per cent, gas 38 per cent, telephone 75 per cent, and the decline for all utilities was 41 per cent. Irving Trust Company, in its "Financing Calendar" dated November 1st, indicates that electric and gas companies have reduced their volume of public financing progressively in the past two years. Including estimated figures for the last quarter of this year, results are as follows, in billions of dollars, for calendar years:

	1957	*1958*	*1959*
Electric Companies ..	$2.5	$2.2	$1.9 Est.
Gas Companies	1.2	1.1	.8 Est.
Total	$3.7	$3.3	$2.7 Est.

"Quoddy" Will Need 2½ Per Cent Money

The Passamaquoddy power project — the proposal to produce power from the huge tides in the Bay of Fundy near the U. S.-Canadian border — has again

been revived, after forty years of study.

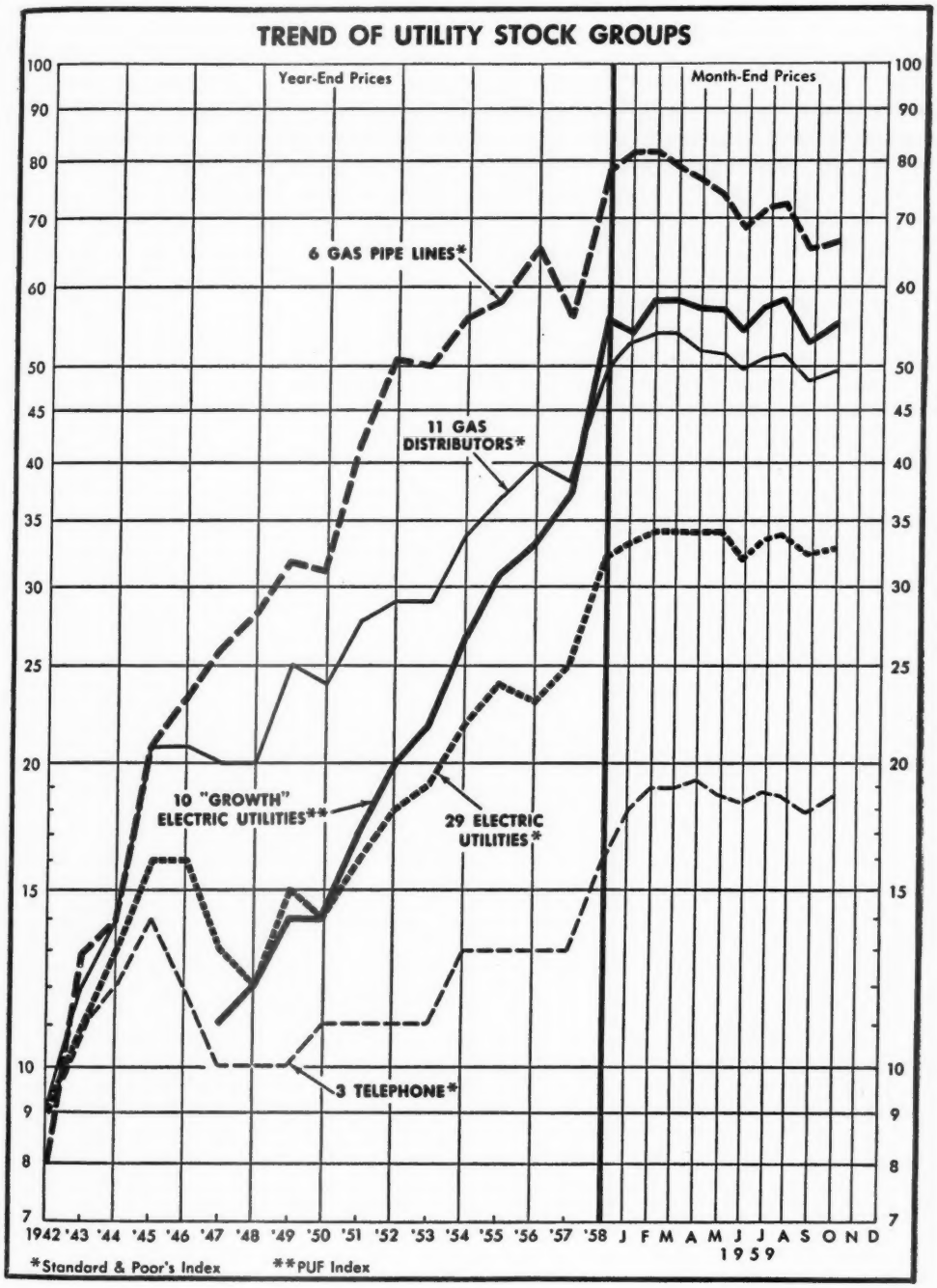
Congress and the Canadian Parliament decided in 1956 to take another look at the project and $3.5 million has been devoted to the study. In a preliminary report, the engineers have declared the study feasible based on certain assumptions. It would take an estimated six years to construct seven island-linking dams, required to pen up the four billion tons of water which move in and out of Quoddy from the Bay of Fundy twice a day. Average annual output, according to an AP dispatch to *The New York Times,* would be 1,143 million kilowatt-hours. However, for maximum power benefits there should be an auxiliary power source, and a hydro plant at the Rankin Rapids site on the Upper St. John river in Maine is suggested.

The combined cost, including interest during construction of $58 million, would

RECENT UTILITY BROCHURES BY WALL STREET FIRMS*

Company Analyses	*Firm*	*No. of Pages*	*Month Issued*
American Elec. Power Co.	Goodbody & Co.	1	July
Anglo-Canadian Tel. Co.	Amott, Baker & Co., Inc.	1	Aug.
Baltimore Gas & Elec. Co.	A. G. Becker & Co., Inc.	1	June
Black Hills Power & Lt. Co.	A. G. Becker & Co., Inc.	2	June
Brooklyn Union Gas Co.	The First Boston Corp.	8	July
Calgary Power, Ltd.	Scudder Fund Distributors, Inc.	2	June
Central Hudson Gas & Electric	Goodbody & Co.	1	Sept.
Cincinnati Gas & Elec. Co.	J. A. Hogle & Co.	2	Sept.
Citizens Utilities Co.	Schwabacher & Co.	3	Oct.
Commonwealth Edison Co.	A. G. Becker & Co., Inc.	1	July
Consolidated Natural Gas Co.	Goodbody & Co.	2	Sept.
Consumers Power Co.	Argus Research Corporation	2	Oct.
Delaware Pr. & Lt. Co.	Goodbody & Co.	2	Sept.
El Paso Natural Gas Co.	Goodbody & Co.	2	July
Gas Service Co.	A. C. Allyn & Co.	2	Aug.
General Telephone & Elec.	Hill, Darlington & Co.	2	June
General Telephone & Elec.	Argus Research Corporation	4	July
Gulf States Utilities Co.	Argus Research Corporation	2	June
Gulf States Utilities Co.	Argus Research Corporation	3	July
Idaho Power Co.	Blyth & Co., Inc.	24	Sept.
Int'l Utilities Corp.	Canadian Business Service	11	July
Laclede Gas Co.	Goodbody & Co.	1	Oct.
Maine Pub. Service Co.	A. G. Becker & Co., Inc.	1	Oct.
Middle States Telephone Co.	A. C. Allyn & Co.	2	Sept.
Montana Power Co.	Argus Research Corporation	2	Sept.
Niagara Mohawk Power Co.	Coffin & Burr, Inc.	1	June
Ohio Edison Co.	Argus Research Corporation	2	Sept.
Pacific Power & Lt. Co.	Coffin & Burr, Inc.	1	June
Panhandle Eastern P. L. Co.	Argus Research Corporation	1	July
Public Service of Indiana Co.	Fahnestock & Co.	2	June
Rochester Gas & Elec. Co.	Goodbody & Co.	2	July
San Diego Gas & Elec. Co.	Shearson, Hammill & Co.	2	June
Southern Company	Thomson & McKinnon	1	June
Southern Company	Reynolds & Co.	1	July
Tampa Electric Co.	Ralph E. Samuel & Co.	1	July
Texas Utilities Co.	Argus Research Corporation	2	Oct.
Transcontinental Gas P. L. Co.	P. W. Brooks & Co. Incorporated	2	Aug.
United Gas Corp.	Argus Research Corporation	2	June
West Penn Electric Co.	Argus Research Corporation	—	July
Western Union Co.	Ira Haupt & Co.	4	Oct.
Western Union Co.	Reynolds & Co.	1	Oct.
Western Union Co.	Gerstley, Sunstein & Co.	3	June
West Virginia Water Service	Ira Haupt & Co.	2	Oct.

*This list is published several times a year, the last previous one being in the July 2nd issue.


TREND OF UTILITY STOCK GROUPS
Year-End Prices
Month-End Prices
6 GAS PIPE LINES*
11 GAS DISTRIBUTORS*
10 "GROWTH" ELECTRIC UTILITIES**
29 ELECTRIC UTILITIES*
3 TELEPHONE*
100
90
80
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**PUF Index

approximate $688 million. The engineers concluded that the two projects together, if built entirely by the United States *at an interest rate of 2½ per cent,* would be economically justified. The report concluded that the power output could be readily absorbed by the growing utility markets of Maine and New Brunswick.

The writer has not yet seen a copy of the engineers' report, and the final report of the commission itself will not be available until later, but the major question at once arises — is the report realistic in assuming a 2½ per cent interest rate? The Canadian government has recently been paying over 6 per cent for money and Washington had to pay 5 per cent for five-year money. If Quoddy were financed at 5 per cent this would mean another $58 million for interest during construction, increasing construction costs by 8 per cent. And interest charges on this increased investment would also be doubled so that the actual increase in the rate would be 5.4 per cent. Of course a liberal Congress could provide money at a 2½ per cent rate if it wished to do so, the same as it is still providing 2 per cent money for REA projects. But if the lower rate is necessary to justify the project, it hardly seems likely that the public power bloc in Congress would make an all-out fight for the project as it did for Hell's Canyon and TVA.

It seems doubtful, also, whether the favorite device for reducing the cost could be used in this case — the allotment of a substantial proportion of construction cost to flood control, navigation, recreation, and similar nonutility objectives. Moreover, the assumption that the nearby area (Maine and New Brunswick) could readily absorb 1,143 million kilowatt-hours per annum (or perhaps a somewhat higher amount including Rankin Rapids) seems rather dubious. In 1958 the state of Maine generated about 2.7 billion kilowatt-hours. New Brunswick has only 60 per cent as much population as Maine, and the latter would probably have to absorb the greater part of the power. Local utilities — principally Maine Public Service and Central Maine Power—would probably not be able or anxious to absorb the load unless assured of cheap power, and cost of wheeling power further south in New England might be prohibitive.

FINANCIAL DATA ON ELECTRIC UTILITY STOCKS

Annual Rev. (Mil.)			*10/28/59 Price About*	*Dividend Rate*	*Approx. Yield*	*Recent Share Earns.*	*% Increase*	*Aver. Incr. In Sh. Earns. 1953-58*	*Price-Earn. Ratio*	*Div. Payout*	*Approx. Common Stock Equity*
$297	S	American Elec. Power	46	$1.80	3.9%	$2.37Au	5%	7%	19.4	76%	36%
57	O	Arizona Pub. Serv.	34	1.20	3.5	*1.72Je	D8	9	*19.8	70	28
12	O	Arkansas Mo. Power	20	1.00m	5.0	1.32Je	D7	2	15.2	76	32
36	S	Atlantic City Elec.	30	1.00	3.3	1.43Je	NC	8	21.0	70	30
153	S	Baltimore Gas & Elec.	51	2.00	3.9	2.75Je	25	7	18.5	73	41
7	O	Bangor Hydro-Elec.	39	2.00	5.1	3.05Se	35	5	12.8	66	33
6	O	Black Hills P. & L.	29	1.44	5.0	2.39Jy	6	4	12.1	60	32
109	S	Boston Edison	60	3.00	5.0	3.64Je	NC	4	16.5	82	43
27	A	Calif. Elec. Power	19	.80	4.2	*1.15Je	22	5	*16.5	70	35
23	O	Calif. Oreg. Power	34	1.60	4.7	1.93My	1	3	17.6	83	37
9	O	Calif. Pac. Util.	35	1.80	5.1	2.56Au**	12	15	13.7	70	31
70	S	Carolina P. & L.	34	1.32	3.9	2.10Se	4	5	16.2	63	42
32	S	Cent. Hudson G. & E.	20	.80	4.0	*1.34Je	2	5	*14.8	60	36
23	O	Cent. Ill. E. & G.	33	1.44	4.4	2.15Au	7	11	15.3	67	43
39	S	Cent. Ill. Light	33	1.52	4.6	2.25Se	11	8	14.7	68	33
55	S	Cent. Ill. P. S.	42	1.76	4.2	2.69Se	5	13	15.6	65	35
17	O	Cent. Louisiana Elec.	46	1.80	3.9	2.08Je	D7	7	22.1	87	30
39	O	Cent. Maine Power	25	1.40	5.6	*1.64Se	D7	4	*15.2	85	33
147	S	Cent. & South West	60	1.80	3.0	2.76Se	10	8	21.7	65	40

Annual Rev. (Mill.)		(Continued)	10/28/59 Price About	Dividend Rate	Approx. Yield	Recent Share Earns.	% Increase	Aver. Incr. In Sh. Earns. 1953-58	Price-Earn. Ratio	Div. Payout	Approx. Common Stock Equity
12	O	Cent. Vermont P. S.	20	1.08	5.4	*1.37Au	12	9	*14.6	79	35
128	S	Cincinnati G. & E.	32	1.50	4.7	1.79Je	D12	3	17.7	84	43
8	O	Citizens Util. "B"†	13	.53	4.1	.67Je	8	6	19.4	79	48
119	S	Cleve. Elec. Illum.	48	1.80	3.8	2.80Je	8	5	17.1	64	45
6	O	Colo.-Cent. Power	24	.75	3.1	1.16Se	18	6	20.7	65	39
46	S	Columbus & S. O. E.	40	1.60	4.0	2.12Jy	D3	—	18.9	75	30
405	S	Commonwealth Ed.	58	2.00h	5.7h	3.67Jy	26	7	15.8	54	43
14	A	Community Pub. Serv.	24	1.00	4.2	1.43Se	7	5	16.8	70	46
78	O	Conn. Lt. & Pr.	23	1.10	4.8	*1.34Se	D1	5	*17.2	82	39
582	S	Consol. Edison	62	2.80	4.5	*3.87Se	7	5	*16.0	72	38
228	S	Consumers Power	56	2.60	4.6	3.57Se	11	1	15.7	73	38
83	S	Dayton P. & L.	51	2.40	4.7	3.23Je	D4	4	15.8	74	40
50	S	Delaware P. & L.	62	2.10	3.4	3.18Se	13	9	19.5	66	33
246	S	Detroit Edison	43	2.00	4.7	2.36Se	1	3	18.2	85	47
145	A	Duke Power	45	1.40i	3.1	2.12Je	6	9	21.2	66	46
99	S	Duquesne Light	23	1.10	4.8	*1.39Je	D3	5	*16.1	79	34
33	O	East. Util. Assoc.	42	2.20	5.2	2.99Au	12	3	14.0	74	34
3	O	Edison Sault Elec.	19	.90	4.7	1.39Au	22	10	13.7	65	34
16	O	El Paso Elec.	35	1.16	3.3	1.57Au	4	8	22.3	74	37
12	S	Empire Dist. Elec.	28	1.36	4.9	1.75Je	23	3	16.0	78	33
57	S	Florida Power Corp.	28	.72	2.6	1.08Je	D6	15	25.9	67	35
145	S	Florida P. & L.	51	.88	1.7	1.91Se	11	18	26.7	46	42
4	O	Florida Pub. Utils.	20	.72	3.6	1.16Je	D3	3	17.2	62	31
213	S	General Pub. Util.	25	1.12	4.5	*1.62Je	5	5	*15.6	69	40
7	O	Green Mt. Power	20	1.10	5.5	1.33Je	4	10	15.0	83	37
70	S	Gulf States Util.	30	.90	3.0	1.29Au	12	7	23.3	70	37
51	A	Hartford Elec.	63	3.00	4.8	*3.70Je	D1	2	*17.0	81	40
25	O	Hawaiian Elec.	52	2.50	4.8	3.28Se**	12	6	16.0	76	34
94	S	Houston L. & P.	70	1.60	2.3	2.92Se	D1	8	24.0	55	41
30	S	Idaho Power	46	1.70	3.7	2.21Jy	D8	9	20.8	77	33
92	S	Illinois Power	41	1.50	3.7	2.49Au	23	7	16.5	60	37
49	S	Indianapolis P. & L.	40	1.70	4.2	2.31Je	8	7	17.3	74	35
31	S	Interstate Power	19	.90	4.7	1.19Se	10	4	16.0	76	32
37	S	Iowa Elec. L. & P.	34	1.60	4.7	2.25Se	8	5	15.1	71	40
44	S	Iowa-Ill. G. & E.	36	1.80c	5.0	2.35Je	D9	—	15.3	77	43
41	S	Iowa P. & L.	35	1.60	4.6	2.07Je	4	1	16.9	77	34
35	O	Iowa Pub. Ser.	19	.80	4.2	1.24Se	10	3	15.3	65	32
15	O	Iowa Southern Util.	29	1.36	4.7	2.18Se	10	4	13.3	62	40
61	S	Kansas City P. & L.	48	2.20	4.6	3.01Se	D1	5	15.9	73	38
33	S	Kansas G. & E.	46	1.48	3.2	2.73Se	12	8	16.8	54	31
50	S	Kansas P. & L.	33	1.36	4.1	2.17Je	10	9	15.2	63	34
43	O	Kentucky Util.	36	1.60	4.4	2.62Je	19	7	13.7	58	40
7	O	Lake Superior D. P.	25	1.20	4.8	1.65Je	2	2	15.2	73	41
122	S	Long Island Ltg.	32	1.30	4.0	*1.97Je	2	6	*16.2	66	34
61	S	Louisville G. & E.	42	1.30	3.1	2.30Je	6	6	18.3	57	42
11	O	Madison G. & E.	47	1.80	3.8	4.03Se	16	2	11.7	45	45
5	A	Maine Pub. Serv.	23	1.20	5.2	1.47Au	3	6	15.6	82	40
7	O	Michigan G. & E.	73	1.70j	5.3	5.63Je	26	9	13.0	30	37
183	S	Middle South Util.	48	1.90	4.0	2.73Se	6	5	17.6	69	39
30	S	Minn. P. & L.	33	1.60	4.8	2.26Se	D3	3	14.6	71	33
3	O	Miss. Valley P. S.	30	1.40	4.7	2.34Se	12	5	12.8	60	33
15	S	Missouri P. S.	18	.72f	6.0	.96Se	D1	3	18.7	75	30
7	O	Missouri Util.	25	1.36	5.4	1.62Je	D4	—	15.6	84	30
44	S	Montana Power	24	.80	3.3	*1.43Je	12	9	*16.8	56	39
167	S	New England Elec.	21	1.08	5.1	1.31Je	12	1	16.0	82	36
46	O	New England G. & E.	23	1.10	4.8	1.72Se	14	6	13.4	64	41
98	S	N. Y. State E. & G.	56	2.30	4.1	*3.98Se	11	9	*14.1	58	35
264	S	Niagara Mohawk Pr.	35	1.80	5.1	*2.07Je	D1	1	*16.9	87	28
92	O	Northern Ind. P. S.	50	2.00	4.0	3.05Se	10	3	16.4	66	36
155	S	Northern Sts. Power	23	1.10	4.8	1.36Se	5	3	16.9	81	36
11	O	Northwestern P. S.	22	1.10	5.0	1.49Je	D6	2	14.8	74	32
138	S	Ohio Edison	65	2.64	4.1	3.83Au	8	3	17.0	69	40
54	S	Oklahoma G. & E.	30	1.00	3.3	1.49Se	4	9	20.1	67	31
26	O	Orange & Rockland Utils.	26	.90	3.5	*1.29De**	3	16	*20.2	70	27
17	O	Otter Tail Power	32	1.60	5.0	2.51Jy	11	1	12.7	64	30

Annual Rev. (Mill.)		(Continued)	10/28/59 Price About	Dividend Rate	Approx. Yield	Recent Share Earns.	% Increase	Aver. Incr. In Sh. Earns. 1953-58	Price-Earn. Ratio	Div. Payout	Approx. Common Stock Equity
535	S	Pacific G. & E.	62	2.60	4.2	3.78Je	NC	6	16.4	69	34
52	O	Pacific P. & L.	38	1.60	4.2	*2.20Je	NC	7	*17.3	73	30
131	S	Penn P. & L.	27	1.25	4.6	1.66Jy	7	5	16.3	75	34
248	S	Phila. Elec.	51	2.24	4.4	*2.80Je	4	3	*18.2	80	38
36	O	Portland Gen. Elec.	28	1.20	4.3	1.64Se	D13	7	17.1	73	37
72	S	Potomac Elec. Pr.	26	1.20	4.6	*1.45Je	D4	6	*18.0	83	37
97	S	Pub. Serv. of Colo.	49	1.90k	3.9	2.68Je	5	5	18.3	71	33
344	S	Pub. Serv. E. & G.	38	1.80	4.7	2.45Se	10	3	15.5	73	34
81	S	Pub. Serv. of Ind.	43	2.10	4.9	2.80Se	D1	4	15.4	75	33
32	O	Pub. Serv. of N. H.	19	1.00	5.3	1.28Se	2	6	14.8	78	36
15	O	Pub. Serv. of N. M.	31	.90	2.9	1.53Je	25	13	20.2	59	34
27	S	Puget Sound P. & L.	34	1.44	4.2	*2.07Je	9	10	*16.4	70	42
65	S	Rochester G. & E.	45	1.80	4.0	*3.33Se	28	4	*13.5	54	34
9	S	St. Joseph L. & P.	32	1.50n	4.7	2.24Se	18	2	14.3	67	34
59	S	San Diego G. & E.	26	1.12	4.3	1.67Je	27	3	15.6	67	35
11	O	Savannah E. & P.	29	1.00	3.4	1.21Au	D23	8	24.0	83	32
11	O	Sierra Pacific Pr.	34	1.40	4.1	2.23Au	16	8	15.2	63	31
256	S	So. Calif. Edison	60	2.60	4.3	3.73Se	6	8	16.1	70	36
50	S	So. Carolina E. & G.	35	1.30	3.7	1.77Au	D3	11	19.8	73	33
7	O	Southern Colo. Pr.	18	.90	5.0	1.30Au	D12	4	13.8	70	36
272	S	Southern Co.	39	1.30	3.3	1.89Se	6	7	20.6	69	34
20	S	So. Indiana G. & E.	32	1.60	5.0	2.43Je	D1	3	13.2	66	35
8	O	So. Nevada Power	29	1.10	3.8	1.73Jy	35	6	16.8	64	46
3	O	Southwestern E. S.	17	.72	4.2	.99Au	8	5	17.2	73	27
44	S	Southwestern P. S.	44	1.56	3.5	2.02Se	15	3	21.8	77	36
32	A	Tampa Elec.	52	1.20	2.3	1.84Se	12	9	28.3	65	33
168	S	Texas Utils.	68	1.76	2.6	2.85Jy	8	11	23.9	62	41
42	S	Toledo Edison	16	.70	4.4	1.17Je	14	4	13.7	60	31
17	O	Tucson G. E. L. & P.	24	.76	3.2	1.00Je	D15	9	24.0	76	47
132	S	Union Elec. of Mo.	32	1.64	5.1	*1.72Se	NC	6	*18.6	95	32
36	O	United Illum.	28	1.38	4.9	1.62Je	5	3	17.3	85	50
6	O	Upper Peninsula Pr.	30	1.60	5.3	1.73Je	13	2	17.3	92	32
45	S	Utah Power & Light	33	1.32	4.0	1.84Au	5	6	17.9	72	44
140	S	Virginia E. & P.	35	1.10	3.1	1.66Se	2	13	21.1	66	40
31	S	Wash. Water Pr.	46	2.00	4.3	*2.73Se	20	6	*16.8	73	32
142	S	West Penn Elec.	37	1.60	4.3	2.36Jy	7	6	15.7	68	32
77	O	West Penn Power	56	2.40	4.3	3.48Je	6	6	16.1	69	38
12	O	Western Lt. & Tel.	39	2.00	5.1	3.13Jy	11	2	12.5	64	41
28	O	Western Mass. Cos.	26	1.20	4.6	1.69Se	2	10	15.4	71	50
119	S	Wisc. Elec. Pr. (Cons.)	38	1.80	4.8	2.59Je	17	1	14.7	70	40
44	O	Wisconsin P. & L.	33	1.48	4.5	2.19Je	14	3	15.1	68	37
43	S	Wisconsin P. S.	26	1.30	5.0	1.86Au	10	3	14.0	70	35
		Averages			5.0%		7%	6%	17.0	70%	
		Foreign Companies									
215	S	Amer. & Foreign Pr.	10¼	$ .50	4.8%	$2.04Je	D6%	0%	5.1	—	57%
129	A	Brazilian Traction	5½	.25	4.5	.64De	D58	—	8.6	39%	76
83	A	British Col. Pr.	37	1.40	3.8	1.95De	D16	7	19.0	72	28
20	O	Calgary Power	98	2.00	2.0	4.46De	11	18	22.0	45	31
19	A	Gatineau Power	37	1.50	4.1	2.55De	7	9	14.5	59	35
49	O	Mexican L. & P.	16	1.00b	6.3	1.66De	D16	—	9.6	60	41
15	A	Quebec Power	35	1.60	4.6	2.34De	8	10	15.0	68	53
71	A	Shawinigan Water & Pr.	30	.68	2.3	1.60De	5	23	18.8	43	38

*Deferred taxes resulting from liberalized depreciation are not normalized. If they had been normalized the price-earnings ratio would be higher. **On average shares. †Stock dividends (only) are paid on the "A" shares. D—Decrease. NC—Not comparable. A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. Ja—January; F—February; Ma—March; Ap—April; My—May; Je—June; Jy—July; Au—August; Se—September; Oc—October; N—November; De—December. b—Also 5 per cent stock dividend May 1, 1959. c—Also 5 per cent stock dividend June 10, 1959. f—Also stock dividend of one-half per cent quarterly. h—Also 2½ per cent stock dividend December 1, 1959, included in the yield. i—Also 15 per cent stock dividend January 29, 1959. j—Also 3 per cent stock dividend (paid each year end) included in the yield. k—Also 5 per cent stock dividend payable February 20, 1959. m—Also 5 per cent stock dividend June 15, 1959. n—Also 10 per cent stock dividend November 20, 1959.

What Others Think

A Capital City Transit Survey Revealed

AN unpublished study—originally intended to constitute the major financial and organizational recommendations in the recently completed Washington Mass Transportation Survey—has now been made public by the Joint Committee of Congress on Washington Metropolitan Problems, headed by Senator Alan Bible (Democrat, Nevada). It was described by Robert C. Albrook in a signed article in *The Washington Post* on September 20, 1959.

If the Bible Committee never does anything else, its service to the Washington community in getting this document into the daylight will have justified its existence.

The committee's staff director, Frederick Gutheim, explains in a foreword that this study "unlike other consultants' reports was not published (along with the survey) due to limitations of funds," and that "its relevance to the Joint Committee's consideration of the transportation survey report and plan has prompted its publication at this time."

The fact is that the unpublished study is qute controversial. It was written by the Institute for Public Administration, which was commissioned to wrap up the survey findings and prepare proposals on how to finance and organize the $2.4 billion highway and transit system recommended by the survey engineering consultants. When the IPA report was submitted, however, the Planning Commission members in charge of the survey were disturbed and put the study aside. They then engaged others to write the final draft of the report on the controversial financing proposals.

Among the IPA comments are these two basic challenges of the scheme to spend $2.4 billion on roads, transit, and parking in the next twenty years:

"ARE all these facilities needed? There is no clear answer to this question. They are obviously needed if the volume of travel demand projected by the traffic consultants is to be met.

"This projection of travel demand, however, has not taken into consideration the price of travel. In effect, it assumes that the traveler's immediate cost—which determines his decision whether or not to make a given trip, and his means of travel—will have about the same weight in his decision in 1980 as it did in the base reference years, 1948 and 1955. However, if the price were higher, the effective demand might well be less. . . .

"How would the region's development be affected by changes in the transportation plan, with less facilities for satisfying travel demand? The question cannot be

answered without specific study. The guess may be ventured, however, that population growth and job opportunities would not be greatly affected by somewhat less opportunity for movement than that afforded by the engineers' plan.

"A transportation system that will move people anywhere in the region with little friction will, for instance, make it possible to live long distances from places of employment. This freedom to live anywhere in the region, regardless of place of work, is a positive value, of course. But it is a very costly value. . . .

"It may well be possible for many people to arrange to live closer to their jobs—for instance, to locate their residences on the same side of the central business district as their jobs and avoid the necessity of traveling to work through or around the central business district. Careful planning could also help shape the region toward this end.

"Second, increasing the supply of motor vehicle roadways will not necessarily decrease congestion; it may instead only increase the amount of travel per person in the region.

"Moreover, expansion of some facilities may only promote more congestion in others; for example, the expansion of arterial roadways to central business districts may only increase the congestion on downtown streets."

Denationalization—How?

EVER since British Prime Minister Macmillan's thumping big victory for the Conservatives last October 8th, the analysts have been downgrading the future of the British Labor party by suggesting further dissension within its ranks. Not many are willing to go so far as the newly hopeful Liberal party leaders, who now talk boldly about replacing the Laborites as Her Majesty's Loyal Opposition, if their own fortunes continue to rise (and the Liberals still have a long way to go). But most of the political wise men do say that the Laborites will at least have to scuttle their nationalization program and find a more popular issue if they want to make a fresh appeal to the British voters.

In other words, the post-mortem experts seem to agree, after sifting the vote results in various districts, that further nationalization of industry has become a dead issue, and that the Britishers have lost their taste for it. Yet, to abandon this traditional tenet of orthodox Socialism would be to risk a split in a minority party with all too many postelection wounds to heal without starting fresh schisms.

Leaving the Laborites to stew in their own juice of defeat, however, some of the cocky Tories are even talking proudly about the long-range possibilities of *de*nationalizing some of the industries already socialized by the Laborites. Such talk is not taken too seriously; and Macmillan himself was canny enough not to bring up such fresh controversy during his campaign. But the fact is the Tories did *de*nationalize the steel industry, after their victory in 1951. Could they now *de*nationalize some of the utilities, and how?

STEEL was hardly a good example, because the Laborites were not actually able to go through with their program for that industry before Winston Churchill bounced back into office in 1951. But unscrambling the thoroughly cooked omelet of British socialized utilities is something else again—probably only a dream of the Tories' far right wing.

But if the Tory right wingers want to make serious plans, if not actual progress, German Chancellor Adenauer has a model handy which is worthy of note. It is his recently announced plan for returning the Volkswagen Automobile Company to private ownership. The plan recalls a similar idea once broached by the "Redhead" Charles Wilson (General Electric, not General Motors) for selling TVA back to the public via stock ownership.

Chancellor Adenauer's government on October 14th announced that it would sell the majority ownership of the Volkswagen Company to small stockholders. The decision ended fourteen years of squabbling over who owned the company Adolf Hitler founded to provide every German with his "people's car."

The government announced it had come to terms with the state government in Lower Saxony, site of the plant, which also claimed ownership. Both governments will retain minority ownership of the plant, with the profits to go to scientific and technical research. Stock will be sold to German citizens only and no one will be able to buy more than five shares. They later will be traded on the stock exchange.

U. S. Taxpayer Foots the Bill for REA's

AN interesting little item which has not received the attention that it deserves is contained in the Comptroller General's report to Congress on the audit of the REA for the fiscal year 1958.

The following excerpt from the report is the gist of the story:

> During the fiscal years 1954 through 1958, the average interest rate on the Treasury outstanding marketable public debt obligations was greater than the 2 per cent maximum payable by REA. . . . The following table illustrates the excess interest costs of the government over the interest charged borrowers on the basis of the total REA obligation to the United States Treasury at the beginning of each fiscal year since 1954.

		Excess of Interest Payable by the Treasury over Established Interest Chargeable to Borrowers	
Fiscal Year	*Balance Due Treasury*	*Interest Rate (Per Cent)*	*Amount*
1954	$1,932,721,000	0.207	$ 4,000,732
1955	2,091,132,000	0.043	899,186
1956	2,206,524,000	0.079	1,743,153
1957	2,343,228,000	0.427	10,005,583
1958	2,518,951,000	0.707	17,808,984
1959	2,727,752,000	0.546	14,893,526

In the original provisions of the REA Act of 1936 the following significant statement is made with respect to the moneys to be given to the REA; namely, "That all such loans shall be self-liquidating within a period of not to exceed twenty-five years, and shall bear interest at a rate equal to the average rate of interest payable by the United States of America on its obligations, having a maturity of ten or more years after the dates thereof, issued during the last preceding fiscal year in which any such obligations were issued."

WHILE the original REA Act was amended in 1944, and fixed the rate at 2 per cent and extended the low maturity provisions from twenty-five years to thirty-five years, there does not appear to be any logic or good economic reason for the Comptroller General to compare the REA interest rate with some average Treasury rate which would include short-term paper and other temporary financing.

Furthermore, with respect to the above tabulation, one is left with a completely

erroneous impression that the taxpayer is out of pocket with a mere $15 million in 1959. In the first place, since 1954 the hard-pressed American taxpayer had to produce some $49 million of subsidy for the nontax-paying REA's. Long-term U. S. government loans do not have an average rate of 2.546 per cent, but in the neighborhood of 4.25 per cent. Since REA loans are by nature long-term, the U. S. Treasury must in turn finance such advances by long-term loans of its own. If it were not for the pressure on the U. S. government to obtain subsidy money for such operations as the REA, the rate would not be as high as it is, and consequently there is every justification for using a 4.25 per cent loan as being the proper incremental rate.

Another important point to consider is that REA loans have a maturity of thirty-five years, and consequently the amounts shown in the above tabulation must be adjusted to reflect the total period of time. To make the first adjustment—namely, from 2.546 per cent to 4.25 per cent—increases the excess of interest payable by the Treasury over the established interest chargeable to borrowers from $14,893,526 to $61.5 million per annum. In thirty-five years the total burden of the taxpayer becomes $2,150 million.

It is clear that the end is not in sight for the endless raids on the pocketbook of the American taxpayer. It is safe to say that by 1965 the balances due to the Treasury will amount to at least $3.6 billion, of which the taxpayer will be forced to contribute $2,830 million, in addition to the untold millions of taxes which he will lose because of the exemption granted to the co-operatives.

If the government is seriously concerned about inflation, and particularly the effect of deficit financing, it should perhaps be reminded of the fact that a substantial portion of this deficit is due to the continuously increasing subsidies which the public power bloc exacts from the taxpayer.

—Josiah Adams

The Responsibility of Business to Our Government

Late last September L. L. Peterson, vice president of the Interstate Power Company, Dubuque, Iowa, gave an interesting statement to the Iowa Area Council of the National Management Association regarding the preparations that management must make for tomorrow. Mr. Peterson sketched the great technological advances that have been made in the past few years—advances that would have been called fantastic twenty-five years ago. He noted that it is not possible to develop a reliable picture of what tomorrow will be like and he, therefore, directed his attention to the development of responsible managers for today.

He stated:

Many thinking men in the United States believe, and so do I, that we Americans are in danger of losing our liberties. The American business system is a reflection as well as an outgrowth of the American system of free men.

I am *sure* that American management people—that is, American business leaders—can make a major contribution to the preservation of our free American society. You will probably agree with me that the liberties our forefathers won in the revolution can be lost by changing the American ideals. While some may say that living conditions are so different that we must accept radical

changes in the character of our society, let us remember that while vast changes have taken place on our earth in comparatively recent times that the character of man has not changed very much, if at all.

Mr. Peterson contends that, in the early days of this nation, citizens, farmers, doctors, merchants, etc., took their responsibility to and for the government in a very serious manner. Mr. Peterson asks if today we are serving our country or are we only concerned with earning a livelihood and with our own luxury?

THE rapid changes in our complex economy have put a severe strain on our American freedoms. It is Mr. Peterson's belief that we can preserve our freedoms but that we will have to fight in order to do it. If we are to prepare for tomorrow we must believe and act now to preserve our free enterprise system and our American liberties. Mr. Peterson stated:

> This talk about preparing for tomorrow has taken a philosophical and historical turn; however, I am simply trying to bring forth the thought that we must develop sound leadership at all levels of government and business or management will have nothing to prepare for tomorrow except to take orders. We must find a way for our best-qualified men and women to enter public service as they had to do in colonial days both in and out of government. Free society needs more sound leaders than do other kinds of society, because in a free society leaders must truly lead—they do not command. This means that good people in management must be willing to live part of their lives in public service, if we are to have a free society to live in at all.

IT is encouraging to hear an American businessman speak out in favor of more active participation and more responsibility for the health and activities of the federal government. Government, of necessity, is a developmental process, adapting itself to the constant changes in the economy, social structure, foreign tensions, etc. The direction that a government develops, in a large measure, is determined by the caliber of the men who enter government service. If men of high caliber, who understand the basic American freedoms and who respect the importance of the free enterprise system, enter government service, we can be assured of the continued health of the nation. If, however, we fail in this responsibility we may very well lose our freedoms. Mr. Peterson quoted a Warner & Swasey advertisement which had appeared in *The United States News and World Report.* It said: "The time to be careful is when everything is wonderful. And that's true, whether it's your business or your country."

Electric Industry a Stabilizing Factor in National Economy

STEADY growth of the electric industry over the past year, which saw other industries experiencing various degrees of setbacks, served as a stabilizing factor in the entire national economy, according to Allen S. King, president of Edison Electric Institute, speaking last month at the final session of a two-day Pennsylvania Electric Association annual meeting at the Bellevue-Stratford Hotel, in Philadelphia.

Mr. King, also president of Northern States Power Company, Minneapolis, said

that during the 1958 recession, the electric industry investment in new plant was $3.8 billion, or 2.3 per cent above 1957, while American industry as a whole fell off 17.4 per cent from the previous year.

Mr. King said the outlook for the future is good. "Over the next ten years," he said, "the electric industry will build and install some 140 million kilowatts of new generating equipment to meet ever-increasing demands for electricity."

Jack K. Busby, president of Pennsylvania Power & Light Company, Allentown, called for a four-point program of action to bring a halt to inflation, which, he said, was not inevitable. Busby said, "Inflation can be licked by recognizing price stability as a principal economic objective, and by devoting the full resources of intelligent monetary and fiscal policy to this end."

The first step in curbing inflation is stabilization of price levels, he said. Second, the supply of money should be increased at approximately the same rate as the increase in output of goods and services. He believes federal tax and expenditure policy should be adjusted to achieve the goal of price level stability, and that a large number of government activities should be re-examined and, in many cases, eliminated.

JAMES S. FAIRMAN, vice president of Consolidated Edison Company of New York, told the association's members that since private industry was given the go-ahead for nuclear power projects in 1954, it may truly be said that nuclear power is, indeed, an industry in orbit. He praised the enthusiasm with which private utilities have entered the atomic power field and said that within the next two years much valuable information will be forthcoming from their various atomic power programs, principally ways to produce electricity economically from the energy of the atom.

Notes on Recent Publications

A STUDY of electric power regulatory systems in Latin America has been published by the Johns Hopkins Press, Baltimore, Maryland. The 304-page book, entitled *"Electric Power Regulation in Latin America,"* was written by Professor David F. Cavers of the Harvard Law School and Professor James R. Nelson of Amherst College. The publication was sponsored jointly by the International Bank for Reconstruction and Development and the Economic Commission for Latin America. The study can be obtained for $6 from the publisher or from local bookstores. A review of the book will appear in a later issue of this publication.

THE National Association of County Officials has recently published its de luxe, hard-bound, 152-page proceedings of the historic Urban County Congress held in Washington, D. C., in the spring of 1959.

Bound in a blue cover with gold lettering, The Urban County Congress book is interspaced with more than fifty photographs of participants, panelists, major speakers, and candid action shots taken during the three-day meeting. From the opening greetings by President Eisenhower to the closing remarks, "Where Do We Go from Here?" by NACO's executive director, Bernard F. Hillenbrand, this book is a must on the shelves of all local government officials, public administrators, educators, students, those who work closely with government, those in the fields of highway, bonds, government financing, and virtually every segment of American life.

The book is the complete report of a conference that ranged across the full scope of urban problems. It is available from the National Association of County Officials, 1001 Connecticut avenue, N.W., Washington, D. C. Price $3.

The March of Events

Canadian Gas Pipeline OK'd

THE Federal Power Commission has approved a $52.8 million pipeline project proposed by Midwestern Gas Transmission Company to import natural gas from Canada into North Dakota, Minnesota, Michigan, and Wisconsin. Canadian agencies must now give permission to Trans-Canada Pipe Lines, Ltd., at Emerson, Manitoba, to export the gas.

Midwestern plans to build a 504-mile pipeline to deliver the gas from Canada to the U. S. Most of it will be sold to Michigan Wisconsin Pipe Line Company at Marshfield, Wisconsin. The FPC also approved a $24.2 million pipeline project proposed by Michigan Wisconsin to transport the gas it buys from Midwestern.

The commission, in its decision, said it considered that Midwestern's supply of Canadian gas was reasonably adequate to support its proposed project. However, the approval was conditioned upon Trans-Canada getting export authority from the Province of Alberta and the Canadian government. It is believed favorable action upon the application will be forthcoming within a few weeks.

California

Another Monorail Plan Outlined

A UNIQUE "monorial" system in which passenger cars are hung beneath rubber-tired power units that run within large box-like girders was outlined to the Los Angeles Metropolitan Transit Authority last month by representatives of a group of French companies.

In the true sense of the word, their system is not a monorail. It consists of a tubular girder that looks like an overhead tunnel 6 feet square. It serves as a track for the large, rubber-tired traction wheels (3 feet, 4 inches in diameter) and the smaller (2 feet in diameter) guide wheels that roll against the sides of the enclosed girder.

As detailed, this overhead system would be suspended from "T" supports, possibly down the center of the freeways. The estimated cost is $3.5 million a mile.

This, its prospective builders emphasized, would include everything — construction, equipment, all safety devices, switch blocks, and even passenger stations.

The cars, carrying as many as 100 seated passengers, would each be equipped with two 200-horsepower electric motors capable of at least 60 miles per hour.

The French group is now building a 1¼-mile experimental transit system in France.

Colorado

Gas Rates Finally Settled

FINAL settlement of natural gas rates between Colorado Interstate Gas Company and its wholesale customers has been effected.

The agreement, which settled rates for the years 1958 and 1959, also established rates for the future, according to Interstate President W. E. Mueller. As part of the settlement agreement, he said Interstate agreed it would not file for any rate increases which would become effective prior to January 1, 1961.

The final rates agreed upon will mean a reduction of approximately 17 per cent in rates presently being collected by Interstate from its wholesale customers and a refund by the pipeline company of approximately $11.8 million, including interest in settlement of rates for 1958 and the first ten months of 1959.

Interstate hopes to make this refund to its wholesale customers before the end of the year, Mueller stated.

The final rates agreed upon in the wind-up of the conference were approximately 2 per cent less than those offered in a settlement proposal made by Interstate last January.

Maine

A Push-button Utility

THE era of the push-button utility has come to northern Maine with what is called the first such installation of an automatic generating station in New England for the Maine Public Service Company.

The diesel-powered unit is built on a one-time potato field.

Developed and built by the electromotive division of General Motors Corporation, the new station is quite a contrast with the usual picture of a power plant. There is no roaring waterfall, no steam, just a few bright green trailer units resembling a gypsy camp set up for the night.

Automation takes care of most operations. In ninety seconds after C. H. Stetson, president of the utility, gave the word, the new plant went on the line at its full rated capacity of 4,200 kilowatts.

For Maine Public Service the decision to switch to diesel followed consultations with Stone & Webster Service Corporation which analyzed the character of the company's needs.

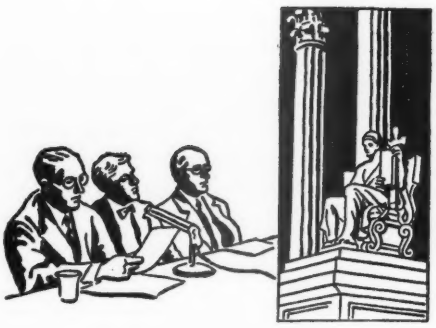
"Maine Public Service's load pattern is typical of the average utility in which 20 per cent of the total load on peak is only required about 2 per cent of the time," Mr. Stetson said at the ceremonies. Not so average, however, is the seasonal fluctuation. Up in Maine, the people do not worry much about air conditioning; they use electric blankets in "so-called" warm months.

New York

Temporary Rate Hike Asked

THE Consolidated Edison Company has asked the state public service commission to grant immediately a temporary electric rate increase averaging 10 per cent for its larger commercial customers.

The interim rise would take effect only while the commission was deciding on rate increase requests in several categories. All told, the utility informed the commission that it would like additional revenues of $30,825,000 a year to bring its return to 6.5 per cent.



Progress of Regulation

Trends and Topics

Are Free Rides Exempt from Regulation?

THE word "free" is greatly distorted in modern advertising. You can obtain many items of merchandise and services "free"—if you pay for something else. Now the question is being raised whether "free" airplane transportation to a gambling resort is actually free, and therefore exempt from regulation by the Civil Aeronautics Board. A hotel in Las Vegas sells, for about $24, an entertainment package, including a bottle of champagne, a dinner, and transportation to and from the airport. You ride to Las Vegas in a private plane without charge.

Free Transportation to Attract Customers

Hotel men privately concede that they hope the passengers will "toddle over to the slot machines" or play the "spinning wheels." This bears some resemblance to the Goldblatt case (33 PUR NS 82). Goldblatt Brothers, Inc., owned and operated a number of department stores in and about the city of Chicago, Illinois. They provided free bus service for customers. Circulars advertising this service were widely distributed. The Illinois commission ruled that Goldblatt was operating buses for transportation in violation of law. There was a solicitation to the entire public to come via Goldblatt's buses to shop.

The commission recognized that there was some authority for the position that a "gratuitous offering" of service is not subject to regulation. In this case there was no cash fare, but the service was ancillary to the carrier's principal business of selling merchandise. The sole purpose of establishing the service was to make profits. There was a definite connection between the use of the bus system and the sale of goods.

The California commission, last year, ordered the cessation of an unauthorized transportation service between stores and a labor camp. No actual fare was charged, but the stores operating this service did not permit the farm workers to board a vehicle for a return trip unless they had made purchases of merchandise (26 PUR3d 47).

The Pennsylvania commission, on the other hand, disclaimed jurisdiction

over a plan for carrying passengers to and from stores on shopping tours. There was no charge to the passengers, but a commission was paid to the bus operator, based on purchases made at the stores. If a person using this service made no purchase, the operator received no pay from the store for the trip (73 PUR NS 461). Moreover, a Pennsylvania court ruled that a company owning and operating suburban apartment houses to which it attracted tenants by offering free transportation by bus between such apartment houses and the nearest railway terminal was not engaged in unauthorized common carriage. Transportation was restricted to tenants and their families, and no charge was made for the service. The company did not obligate itself to perform this service (5 PUR NS 279).

A company operating a large apartment development and incidentally operating a bus carrying only tenants, their guests, and servants to and from a nearby town, without any direct charge for the service, was held by the New York commission not to be subject to regulation as an operator of a bus for hire or for compensation. The fact that a particular transportation service is not rendered wholly gratuitously and without any contribution, said the commission, does not necessarily mean that it is "for hire" or "for compensation." There exists a zone of transportation intermediate between gratuitous service and service for hire or for compensation (16 PUR3d 45).

Subterfuge to Evade Regulation

An obvious intent to collect money for transportation places the operator in a position where he will probably be regulated. The Pennsylvania commission upheld a complaint against a so-called community bus carrying passengers on regular schedule without making a fixed charge and advising persons not to ride on trolley cars but to wait for the bus, "maintained by voluntary contributions." Inside the entrance door was a box or receptacle, and the driver had envelopes which contained change. The majority of riders deposited a nickle, though some gave more. Some few rode free. Advertising cards contained the words: "Don't ride in the trolley cars, wait for the bus, give away a nickel—save two cents." (PUR1924D 750.)

CAB Ruling on Ferry Flights

The Civil Aeronautics Board expressed views on the status of air-line service when it investigated Pan American World Airways, Inc. It was said that a carrier holding itself out ready and willing to transport passengers or property for hire is a common carrier and that the controlling consideration is the availability of the carrier's service to some segment of the public. The fact that a carrier holds itself out as a common carrier with respect to certain transportation activities does not preclude it from performing other services in a non-carrier status.

The commission decided that transportation of invited guests of officers and representatives, without charge, on ferry flights between New York and Miami, did not constitute service as a common carrier within the meaning of the Civil Aeronautics Act where such transportation was merely an incident to flights

called for by legitimate operational considerations, in the absence of a showing that members of the public other than invited guests were aware of the services being rendered or would have been accepted had they known and requested the carriage.

The commission went on to hold, however, that an airline may not escape common carrier responsibility or avoid regulation by the simple device of not charging for transportation on certain flights, if all other necessary elements of common carriage are present. A carrier may not transport members of the public free of charge as invited guests on ferry flights between two points when such guests continue their journey beyond that point as paying passengers on the airline's commercial service (2 PUR3d 229).

Review of Current Cases

Surplus and Reserve Accounting Authorized For Income Tax Deferrals

IN an order supplemental to its 1957 ruling on the accounting treatment of deferred federal income taxes resulting from accelerated depreciation and amortization, the Indiana commission has authorized utilities to use either an appropriated surplus account or a reserve account. Under the 1957 order (21 PUR3d 414) only an account designated "Reserve for Deferred Federal Income Taxes" was permitted. Now, the utility, charging "Provision for Deferred Federal Income Taxes," may elect to credit "Restricted Surplus for Deferred Federal Income Taxes" or a reserve account.

The commission observed that "the mandatory use of the reserve treatment in accounting for accumulated deferred taxes will deprive a utility of cost-free equity capital available for plant expansion, will reduce the ratings of any new securities of a utility with attendant increased capital costs, and will require large additional equity financing with greatly increased cost of money." The commission thought such increased capital costs would tend to increase rates.

Dissent Hits Misleading Equity Ratio

Commissioner Haymaker, dissenting, expressed the view that the treatment of tax deferrals as appropriated surplus, permitting their inclusion in common equity, authorizes the use of a future tax liability as a part of equity capital to raise the equity ratio and thereby enable the utility to incur more debt than would otherwise be warranted. Such accounting practice tends to mislead existing and potential stockholders, the commissioner said.

Congress could have accomplished its economic end, Commissioner Haymaker pointed out, if, instead of changing the tax law, it had permitted companies that make certain additions to their properties to borrow from the government interest free. "Under these circumstances it is doubtful if anyone would contend that the amount so borrowed should be added to common equity, but this is exactly what the advocates of the 'Appropriated Surplus' method are asking to be done." *Re Accounting Procedures No. 27527, September 8, 1959, dissenting opinion September 18, 1959.*

Transwestern Certificate Conditions Modified And Supplemental Proceeding Allowed

IN a rehearing proceeding on the recent Transwestern Pipeline Company expansion (reviewed in PUBLIC UTILITIES FORTNIGHTLY, October 8, 1959, page 663), the Federal Power Commission lifted its certificate condition reducing a proposed minimum bill of 100 per cent annual use of contract demand to a 75 per cent minimum bill. On Transwestern's representation that it could not economically or feasibly market its securities with the lower minimum bill provision, the commission authorized a 91 per cent minimum bill provision similar to that which El Paso Natural Gas Company applies for gas delivered to the same California distribution companies which will receive Transwestern's gas.

A contract make-up period was reduced from ten years to five years in keeping with a similar provision of El Paso. The modification of the minimum bill condition from 75 per cent to 91 per cent removed the need for a reduction of the take-or-pay provisions in producer contracts.

Supplemental Proceedings on Prices

Objecting to the price conditions imposed by the commission, a number of producers asked for a reopening of the certificate proceedings to permit them to introduce further evidence to substantiate their proposed prices. They pointed out that the hearing in these proceedings had been adjourned and briefs filed at the time the Supreme Court handed down the CATCO (29 PUR3d 70) decision. They urged that they should have an opportunity to meet the burden which the commission, in the light of the CATCO decision, said they had not met.

In view of these considerations, supplemental proceedings will be conducted in which the parties may introduce such additional evidence as they deem necessary, including proof of costs. This procedure should be more expeditious than proceedings under § 4(e) of the Natural Gas Act, the commission noted. Notice was given, however, that this procedure does not relax the degree of proof required to sustain any increase in initial prices. It will merely allow wider latitude in the kind of evidence which may be presented. In order for the applicants to sustain their proposed initial prices under this procedure, the evidence must be as convincing as it would be in a rate proceeding under § 4(e), although it may be of somewhat different character. *Re Transwestern Pipeline Co. et al. Docket Nos. G-14871, G-14925, G-14940 et al. September 23, 1959.*

Constitution Not Violated by Legislation Delegating to Judiciary Power to Appoint Commissioners

THE New Hampshire supreme court, answering a question propounded by the state legislature, has held that legislative delegation to the judiciary of the power to appoint commissioners does not violate the constitutional provisions relating to separation of powers.

The three branches of government cannot be completely separate, pointed out the court, and in the nature of things, there must be some overlapping. Courts may have some administrative powers and executive agencies may have some judicial powers. The purpose of the article in the Constitution relating to separation of powers is to protect each of the three

branches from encroachment by the other. As applied to the judiciary, its primary purpose is to protect it from legislative encroachment rather than to circumscribe its functions within strict limits.

Overlapping Powers

It is to be remembered, said the court, that the development of administrative law came about only because the separation-of-powers doctrine was given a practical and workable application. However it may be disguised, the distinction between legislative and executive action cannot be distinguished with mathematical precision, and the three branches cannot be divided into watertight compartments. There are governmental powers of doubtful classification which may be held properly to belong to either or more than one department of government. In such cases, it is a legislative function to assign the power to one of the appropriate departments.

Since the legislature has the power to select commissioners, it has the power to delegate the appointing power either to the governor and council or the supreme court.

As long as such delegation does not interfere with judicial duties, it does not violate the Constitution. *Re Opinion of the Justices, 152 A2d 878.*

Pro Rata Revenue Increase Distribution

TAMPA ELECTRIC COMPANY was required by the Florida commission, in a reconsideration proceeding, to distribute a previously authorized revenue increase (29 PUR3d 402) pro rata among its various classes of services. Following the original order, the company submitted rates designed to place the whole burden of the increase upon residential and small commercial customers.

When electric utilities came under the jurisdiction of the commission in 1951, their existing rates were made the lawful rates by the legislature until changed by the commission. Therefore, the existing relationship between rates for the various classes of service must be considered as reasonable and lawful until changed under commission authority. However, no cost-of-service studies were presented in this proceeding on which a change in the existing relationship between rates for various services could be justified.

The company may either submit rates based on a pro rata distribution of the authorized increase or present cost-of-service studies to enable the commission to determine how much of the increase should be imposed upon any particular class of service. *Re Tampa Electric Co. Docket No. 5274-EU, Order No. 2695-C, September 14, 1959.*

Telephone Exchange Rate Increase Granted On Capital Cost Basis

SOUTHEASTERN TELEPHONE COMPANY has finally obtained authority from the Florida commission to increase rates. A gross revenue increase of $585,195, rather less than the $875,000 requested, was allowed. This result followed proceedings in which the commission had granted a temporary increase, only to vacate its order. The company collected the temporary increase under a court injunction until the injunction was in turn vacated pursuant to an appellate court decision.

A refund of the excess charges is expected to be completed by December 15, 1959. The entire record as originally made in the hearing in November, 1958, was received in evidence in the present proceeding, and is the basis of the new rate increase.

Working Capital Allowance

The commission indicated that there should be no allowance for cash working capital in fixing rates for exchange operations, since exchange subscribers are billed in advance. Since about forty-five days elapse between the rendition of toll service and the collection of toll revenue, cash working capital for toll operations should represent approximately one-eighth of state and interstate toll operating expenses less depreciation.

An allowance for materials and supplies representing the balance in the account was considered reasonable. The commission pointed out, however, that any free cash available to the company must be deducted from the working capital requirement. Free cash includes the lag on federal income tax payments, deferred income tax payments, and customers' deposits on which no interest is paid.

Recorded Expenses Used

A proposed upward adjustment of recorded operating expenses to annualize certain conditions which had existed for a part of the test year was rejected. The commission thought the adjustments were probably offset by excessive charges due to abnormal conditions resulting from deferred maintenance. Recorded operating expenses were therefore used.

Cost of Capital

In calculating Southeastern's earnings requirement, the commission used actual capital ratios of 43.1 per cent long-term debt, 3.1 per cent preferred stock, and 53.8 per cent common equity. The present cost of senior securities was employed in the calculation. The earnings accruing to common equity were based on the company's past experience as to the portion of earnings on total capital which inured to common equity.

During the years 1953-57, the company retained in surplus an average of 1.90 per cent of total capital and had a dividend pay-out ratio of 62.63 per cent. For this five-year period an average of 5.08 per cent of total capital was provided for common equity, which, when applied to total year-end capital for the test period, indicated a common equity earnings requirement of 9.45 per cent. An overall cost of capital of 6.65 per cent was determined.

Since state toll and interstate toll services produced slightly more than their required earnings, the entire deficiency resulted from exchange operations. The authorized return of 6.58 per cent on a year-end rate base for exchange properties will satisfy this deficiency. *Re Southeastern Teleph. Co. Docket No. 5364-TP, Order No. 2811, September 25, 1959.*

Written Notice Not Required in Zoning Decision

On appeal from a decision of a local zoning board, the Connecticut commission ruled that the zoning agency was not required to give written notice to all interested parties of its decision in a proceeding for the construction of a water storage facility in a town. Notice had been given to the appellant prior to the hearing in the case, but he was not given written notice, however, as to the zoning decision.

The pertinent statute provides that

"written notice of any order [by a local zoning authority] shall be given to each party affected thereby." The appellant asserted that the statute is mandatory and attacked the validity of the zoning decision, which had approved the erection of the proposed tank, on the grounds of noncompliance with the statute.

The commission held that the statute is directive merely and not mandatory, so that failure to give written notice of the decision did not invalidate it. The decision was therefore affirmed. *Sciortino v. Trumbull Planning and Zoning Commission, Docket No. 9797, August 25, 1959.*

Both Operating Ratio and Rate Base Considered In Transit Rate Proceeding

SALT LAKE CITY LINES has failed to convince the Utah commission that it is entitled to a rate increase. This transit company was similarly unsuccessful in obtaining an increase in 1958.

Earnings Paid Out in Dividends

After giving effect to several adjustments in the financial data submitted by the company, the commission arrived at an operating ratio of 95.8 per cent for 1958 under the present fare structure. City Lines contended that its operating ratio should be in the range of 91 to 92 per cent. The commission took the position that rate base, as well as operating ratio, should be taken into consideration in determining the revenue requirement.

Since most of its coaches are old and well depreciated, the company would have a relatively small rate base. Liberal dividends have been paid to City Lines' parent corporation, which owns all except qualifying shares in the company. The commission pointed out that if City Lines had used earnings to purchase a reasonable number of new buses instead of paying large dividends to its parent, there would be a greater rate base on which to earn a fair rate of return. The company was required to obtain permission from the commission before paying any more dividends. Moreover, while it was recognized that the replacement of a given coach is primarily a matter for management to decide, the commission urged the company to adopt a suitable plan for the gradual replacement of old coaches.

Profit on Sale of Coaches

In 1958 City Lines sold five coaches at a profit of $10,000 over their net book value. In this rate proceeding the company included this profit as a nonoperating income on the premise that it would be improper to credit one year's operations with an amount that actually related to several past years.

The commission ruled that the profit must be reflected as a credit in the depreciation expense account for 1958, noting that there would probably be further profits on sales of coaches in the future. Carrier operations should receive credit from this source each year in which a profit is realized.

Dealings with Affiliates

Commenting on another sale of coaches by City Lines to an affiliated transit company for a price amounting to mere salvage value, the commission pointed out that a realistic price should have been obtained.

Costs incurred by the parent corporation in managing City Lines, along with its other subsidiaries, are prorated on the basis of the gross revenues of the sub-

sidiaries. In City Lines' share of such costs was included a considerable sum representing an apportionment of interest expense incurred by the parent. Since City Lines had no interest-bearing debt in 1958 and had substantial cash on hand, it was improper for the parent to charge any interest to this subsidiary, the commission held.

The advertising that appears on the coaches operated by City Lines is handled by an affiliated company, and the parent corporation is the sole beneficiary of earnings from the advertising. The commission indicated that as a matter of equity such earnings should remain with the transit property that makes such business possible.

In another arrangement with an affiliate, City Lines provides garage space and completely manages a truck rental business for a nominal charge of $100 a month. If this business is to be continued, said the commission, City Lines must be paid a reasonable amount for the services it performs, or else the business should not be domiciled at City Lines. *Re Salt Lake City Lines, Case No. 4506, July 30, 1959.*

Failure to Hear Evidence Renders Certificate Grant Void

THE Arizona supreme court has affirmed a court judgment declaring void a certificate issued to a water utility by the commission. The court took the view that the commission's failure to hear the evidence or to have a transcript of the evidence for study and consideration was not merely a technical omission or informality since it went to the very heart of the powers to issue the order.

Since the commission is performing a judicial function when it rules on applications for certificates, said the court, it is clear that only the commission is authorized to grant certificates and cannot lawfully delegate power to anyone. Therefore, any certificate which is not issued as the deliberate and considerate act of the commission after consideration by it of the evidence, is void for want of jurisdiction and is subject to a collateral attack.

The commission was held to have authority to let the director of utilities conduct the hearing, but if it chose that course, it was under the duty to have a transcript prepared for its study. The reason given by the commission for not having a reporter and a transcript was lack of funds. This lack of funds, said the court, cannot alter the legal principle established by law and the rules of the commission that at a hearing on an application for a certificate, the commission must hear the evidence or have a transcript made before rendering an opinion and order on the application.

Doctrine of Laches

The holder of the certificate had contended that certain landowners who had brought the action for a ruling on the validity of the certificate were guilty of laches and thereby precluded from objecting. The court did not think that the doctrine of laches could be applied to the case because the certificate was void from the outset, since the commission did not hear the evidence. Such a certificate, pointed out the court, could not later be validated by any acts of the appellees on the theory of laches.

Proper Notice

One of the issues in the case was the

question of proper notice. The commission, in accordance with its normal practice, had sent notice to the municipality involved, the county involved, and the attorneys of record; and it sent a news item to the area newspaper. The court held that this constituted legal and proper notice, since the commission is not required to give notice to all landowners or potential water customers residing within the area covered by the application. The matter of notice is within the discretion of the commission, since there is no applicable statute spelling out the notice requirements.

Clerical Omission in Order

The fact that by some clerical omission, the description of the land area to be covered by the certificate did not appear in the opinion and order granting the certificate was not considered a fatal defect. The opinion and order specifically referred to the docket number, pointed out the court, and a complete legal description of the certificated area was readily available for all to see by an examination of the docket on file in the office of the commission.

The appellees' attack on the sufficiency of the commission order, as well as the form and content, appeared to the court to be a collateral attack on the certificate, permitted by law to be raised only in direct proceedings of direct appeals from the commission's rulings. Procedural or legal errors, said the court, such as the omission of the land description on the order and insufficient findings of fact and all other matters pertaining to the form of the certificate itself are barred in a collateral proceeding.

However, the failure of the commission to hear the evidence or to have a transcript of the evidence for study and consideration went to the very heart of the order, and was not just a matter pertaining to the form of the certificate. Therefore, since the order was void for want of jurisdiction, it was subject to a collateral attack. *Walker et al. v. De Concini et al. 341 P2d 933.*

Rail Rate Differential to Meet Truck Competition Upheld

THE supreme court of Nebraska affirmed a commission order denying an application to reduce rail rates on crushed rock and stone to the same level as those applicable to sand and gravel. It held that the economic discrimination against shippers of crushed rock and stone resulting from the reduced rail rates on sand and gravel, fixed by the commission to enable railroads to meet motor truck competition, was not unjust in view of differences in the circumstances and conditions surrounding the products.

The state of Nebraska is underlaid with vast deposits of sand and gravel suitable for building and road construction purposes. This makes it possible to open sand and gravel pits close to large building and road construction projects and to transport sand and gravel by motor truck to such points. Most of the shippers of sand and gravel by rail are located in the eastern edge of the state. In order that the railroads might meet the competition of these roadside operators of sand and gravel pits, and participate in the transportation of sand and gravel, the commission had authorized a rail rate which was substantially less than the rate on crushed rock.

Shippers of crushed rock claimed that

as a result of the fixing of the lower rate on gravel than on crushed rock, a greater charge was made against the crushed rock producers for a like and contemporaneous service, amounting to an unjust discrimination and unreasonable preference.

Fifty per cent or more of the crushed rock shipped by rail is sold to state and federal government agencies for use in the construction of roads and airport facilities. Practically all of these shipments are made pursuant to contracts specifying the composition of the aggregates to be used. In such construction projects, according to the court, crushed rock and gravel are not competitive. It concluded that a reduced rate on gravel was required to meet competition with motor truck transportation.

The court held that whether railroads should be permitted to carry gravel at lower rates in order to compete with motor carriers presented an issue peculiarly within the province of the commission to decide. It noted that courts may not interfere with the rate-fixing function of the commission unless an unjust discrimination is shown or the commission's order is unreasonable, arbitrary, and unsupported by evidence.

A discrimination or preference resulting from a rate order is not necessarily unjust or unreasonable since rates must be adjusted on considerations other than that merely of bringing about economic equality. Where competitive conditions are different, different rate levels may be justified. *Re Nebraska Limestone Producers Asso. 97 NW2d 331.*

Bus Service in Municipality Discontinued

THE Connecticut commission approved a bus company's petition to discontinue service in and about Meriden, despite contentions of opponents that the commission should have considered the company's past profits and its system-wide operation.

A fundamental principle of regulatory law, pointed out the commission, is that former profits, if any, are the property of owners of the enterprise, and cannot be the basis for evaluation of a company's current and future operating experience. Also, the company's present operations could hardly be described as a statewide system. Rather, it operated local transit service within various communities in Connecticut with some suburban routes and a relatively small number of interurban routes. For this reason, the commission could not accede to the argument that because the company operated local service in and around a number of cities, patrons in such cities should be called upon to subsidize deficits sustained from operations in and around Meriden.

Other Measures Unsatisfactory

The facts conclusively demonstrated that tax relief and higher rates of fare were not sufficient to stem the excessive losses to which the company had been subjected. Although it is a fundamental principle of regulatory law that upon dedication of property to the public service, a common carrier cannot unilaterally discontinue such service without commission approval, the commission's jurisdiction was limited not only by state statutes, but also by the requirements of the state and federal Constitutions. It is patent that continuation of motorbus service in Meriden, said the commission, will constitute an onerous and unconscionable burden upon the company. Losses from

continuance of such operation would, in effect, result in a confiscation of property without due process of law, a violation of a basic constitutional protection. *Re Connecticut Co. Docket No. 9747, August 28, 1959.*

FPC Reaffirms Tax and Return Rulings in El Paso Rate Case

IN a rehearing proceeding brought by gas companies and state commissions, the Federal Power Commission reaffirmed its treatment of federal income taxes and return in the El Paso Natural Gas Company decision (29 PUR3d 469). However, pending judicial review, it granted a stay of the order with respect to the making of refunds.

In arriving at El Paso's cost of service in the original decision, the commission determined that the company should retain the advantages of the federal tax deductions relating to liberalized depreciation, intangible well-drilling costs, and percentage of income depletion rather than pass them along automatically to the consumers as a reduction in the cost of service. It was found that the tax benefits would produce a return of 8.61 per cent on El Paso's well-mouth properties, which the commission allowed, with a 6 per cent return on nonwell-mouth properties.

Tax Incentives Constitute Return

El Paso urged that it should be allowed a 6 per cent return on well-mouth properties together with an additional 8.61 per cent representing the tax advantages. This proposition was rejected. The tax incentives, representing revenues over and above operating expenses and other expenses of doing business, are, in effect, return and compensate the company for rendering service and for the use of its capital. The record did not support a higher aggregate return than 8.61 per cent on well-mouth properties, the commission held.

Southern California companies took the view that any return over 6 per cent was unjustified. Again the commission disagreed. Great difficulty would result in financing the exploration and production of gas, it was pointed out, if producers were not able to retain the tax benefits afforded by the tax laws. Moreover, it would be anomalous if the oil industry and intrastate sales of gas were to reap the tax benefits while the interstate gas industry could not. The commission noted that it has a duty to take into account the impact of the Internal Revenue Code or any other applicable statute in making regulatory determinations with respect to producers under the Natural Gas Act, just as, by analogy, it may take into account the antitrust laws in considering a certificate case.

Seaboard Formula Upheld

The Southern California companies also objected to the application of the Seaboard formula (94 PUR NS 235) to El Paso. This formula is a rule of general application by which the volume of gas sold is required to pay part of capacity costs. The commission indicated that the heavy users of El Paso's facilities should bear a greater share of the capacity costs than light users.

To treat all the customers equitably something akin to the Seaboard formula is necessary, said the commission. While the Seaboard formula may not favor the California customers in this particular case, other aspects of the cost allocation, such as the system-wide method of allocations would favor them.

Property for Future Use

An objection by the New Mexico commission to the inclusion of plant held for future use was not sustained. The Federal Power Commission thought it immaterial that such plant consists of gas properties not now used or having any direct relationship to service rendered during the test period. The evidence showed that El Paso will eventually build facilities necessary to bring the gas into its present system or otherwise make use of it in the system. In view of the continued use of gas, El Paso must acquire producing properties to meet future demands. On the same reasoning the federal commission reaffirmed its inclusion of exploration and development expenses in the cost of service, even though they had no direct connection with El Paso's present service. *Re El Paso Nat. Gas Co. Opinion No. 326-A, Docket No. G-4769, October 8, 1959.*

Television Construction Permits Vacated

In two recent cases, the U. S. court of appeals vacated television channel construction permits and remanded the cases to the commission. Originally both commission decisions had been affirmed by the court of appeals, but the Supreme Court had granted certiorari, vacated the judgment, and remanded the cases to the lower court.

In both cases, evidence had been presented to show that there had been ex parte approaches to members of the commission by some of the mutually exclusive applicants.

In the Sangamon Valley case, the court pointed out that the usual practice of the Federal Communications Commission in connection with a proposed allocation of television channels to particular communities was to prescribe a cutoff date for comments, after which no additional comments could be filed without request from the commission or a showing of good cause. Such rule, held the court, forbade submitting material to individual members after time for filing it with the commission had gone by. Such rule could not be interpreted to permit parties to make off-the-record contentions they were forbidden to make on the record.

The commission was instructed to hold, with the aid of a specially appointed hearing examiner, an evidential hearing to determine the nature and source of all ex parte pleas and other approaches made to commissioners while the proceedings had been pending, and any other factors that might require either disqualification of some commissioners from participating in the reopened proceedings or disqualification of some parties from receiving any awards that might ultimately result. *Sangamon Valley Television Corp. v. United States et al. 269 F2d 221; Worz, Inc. v. Federal Communications Commission, 268 F2d 889.*

Similarity in Operating Conditions Necessary for Rate Comparisons

The Minnesota supreme court reversed a court judgment affirming a commission order prescribing a maximum scale of railroad freight rates for certain items. The reviewing court held that before new rates can be prescribed by the commission, a finding that existing rates are unreasonable or discriminatory is es-

sential. There must be facts to support such a conclusion.

Comparison of intrastate rates in the state with rates in other states, held the court, is insufficient to support a finding that rates are unreasonable or discriminatory, without a showing of similarity in operating conditions. Such comparisons may have some probative value if accompanied by a showing of similarity of operating conditions, and if it is shown that they apply to the same type of haul. *Minnesota R. & Warehouse Commission v. Chicago & N. W. R. Co. 98 NW2d 60.*

Other Recent Rulings

Gas Lease Purchase. Notwithstanding the recent CATCO decision of the Supreme Court (29 PUR3d 70), the Federal Power Commission denied rehearing of its order (29 PUR3d 100) authorizing Texas Eastern Transmission Corporation's pipeline expansion involving the acquisition of gas leases in south Louisiana at an estimated production cost reaching 22.89 cents per Mcf. *Re Texas Eastern Transmission Corp. et al. Docket Nos. G-12446 et al. August 21, 1959.*

Gas Sales for Industrial Use. The Federal Power Commission held that the provision in § 4(e) of the Natural Gas Act, denying the commission authority to suspend rates for natural gas sales for resale for industrial use only, is mandatory. *Re Cities Service Gas Co. Docket No. G-18799, August 27, 1959.*

Interstate Carrier Subterfuge. A federal appeals court held that a truck rental company and a drivers' service company, commonly controlled and operating in concert in interstate carrier service without certificate authority, constituted a mere subterfuge which could not prevail in the face of the requirements of the Interstate Commerce Act. *Vincze et al. v. Interstate Commerce Commission, 267 F2d 577.*

Not Res Judicata. The U. S. court of appeals affirmed a district court's judgment holding that Interstate Commerce Commission findings in a case involving rates through a certain city for break-bulk traffic in which loading and unloading and lighterage are essential elements are not res judicata in a proceeding involving nonbreak-bulk traffic in which no lighterage or floatage, or loading or unloading services, are performed. *New York, S. & W. R. Co. v. Reading Co. 268 F2d 348.*

Contract Carrier Status. The U. S. court of appeals held that a firm which transported mail by motor vehicle under contract with the federal Post Office was not a contract carrier subject to Interstate Commerce Commission jurisdiction. *Steinmetz et al. (Tennessee Postal Service) v. Mitchell, 268 F2d 501.*

Resumption of Operations. The U. S. district court held that, in determining whether there is a present or future need for resumption of past motor carrier operations, it is a prerequisite that such operation be shown to have not been unlawful or at least conducted under some color of right. *McBride's Express, Inc. v. United States et al. 173 F Supp 539.*

Reorganization Jurisdiction. The U. S. district court ruled that the New York commission has general supervision over all omnibus corporations during bank-

ruptcy and reorganization, and the court, therefore, properly submitted reorganization plans to the commission for certification and report. *Re Third Avenue Transit Corp. et al. 173 F Supp 702.*

Intent to Violate. The U. S. district court held that operation of trucks with defective equipment or without proper equipment did not constitute a violation of the Interstate Commerce Act in the absence of evidence showing that the carrier knowingly and willfully operated with such defective equipment or without proper equipment. *United States v. Joralemon Bros., Inc. 174 F Supp 262.*

Temporary Injunction. The U. S. district court held that the principal object of a preliminary injunction is to preserve the status quo, not to decide the case on the merits, and the status quo is the last uncontested status which preceded the pending controversy. *Interstate Commerce Commission v. Hudson Transp. Co. 174 F Supp 373.*

Railroad Abandonment Upheld. The U. S. district court refused to substitute its judgment for that of the ICC, in a case involving approval of railroad abandonment where there was unrefuted evidence to support the commission's conclusion that the railroad had sustained large operating losses, without a substantial possibility of future improvement, and the commission had weighed proffered evidence of overreaching in transactions with a wholly owned subsidiary and found that further proof of the company's financial condition was not required. *Jay Street Connecting Railroad v. United States, 174 F Supp 609.*

Expired Contract Rate Prevails. The U. S. court of claims held that the federal government, as a shipper of aviation gasoline, was liable to an intrastate motor carrier for rates under an expired contract where the government had continued to ship after the carrier had refused a requested rate reduction and the government had paid at the expired contract rates even though it had subsequently demanded a refund, since the government's course of conduct gave rise to a contract evidenced by acts rather than by words to continue to pay the rates of the expired contract. *Alabama Highway Express, Inc. v. United States, 175 F Supp 143.*

Ownership of Telephone Pole Line. The California district court held that a telephone company, operating under a county franchise, which accepts a gas and electric company's offer to erect new poles to carry the power company's telephone lines along a portion of the telephone company's route, and to transfer the telephone company's wires to the new poles without cost, does not become the owner of the new pole line but has only a license to maintain its wires on the new poles. *Farmers Mut. Teleph. Asso. v. Pacific Gas & E. Co. et al. 343 P2d 111.*

Partial Transfer of Rights. The Florida supreme court ruled that a motor carrier certificate authorizing hauling of cement and cement mixes between all points in Florida over irregular routes could be transferred in part, so that the transferee could haul from cement plants in Flagler Beach to all points in the state, and the original holder could haul from Tampa to all points. *Central Truck Lines, Inc. et al. v. Carter et al. 113 So2d 841.*

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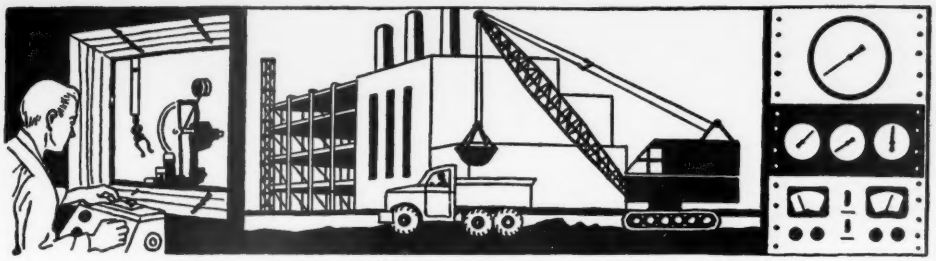

Industrial Progress

izona Public Service Plans $262 Million Outlay by 1964

IZONA Public Service Company pects to spend approximately $262 ion for construction purposes" in five years ending December, 4, according to Walter T. Lucking, sident. The total compares with 1 million spent for construction in previous five years.

Ir. Lucking said electric facilities ll require $217 million, or by 1964 tal investment of 2½ times the elec- plant at the end of 1958." The million earmarked for gas facili- will make "our gas plant invest- nt at the end of 1964 nearly twice gas plant at the end of 1958."

Other capital outlay items during five year period include $8.5 mil- n for common property additions, luding equipment, trucks and uctures; $54,000 for motor busses, 1 $1 million for sundry accounts.

W Receives Boiler Contract From Southern Electric Generating Company

HE Babcock & Wilcox Company orted recently that it has received ontract to manufacture and install oiler for Southern Electric Gen- ting Company's new steam-electric erating plant near Wilsonville, .

The boiler will be the fourth unit at new plant. Similar to the other ee installations, which were all nufactured by Babcock & Wilcox, newest unit also will serve a 250,- 0 kilowatt turbine generator.

As yet, none of the units at Wil- ville has gone into operation. The t two boilers are slated to go on- e in 1960, with the Number 3 unit heduled to go into service in the ing of 1961 and Number 4 in the ing of 1962. When the station is oducing its maximum rated capacity of 1,000,000 kilowatts, it will rank as one of the largest steam generating plants in the world.

The unique feature of the Southern Electric Generating Company is that while it will generate power it will not distribute it to the ultimate consumer. The plant's total power output will be sold equally to the Alabama Power Company and the Georgia Power Company, each of which owns 50 per cent of the Southern Electric Generating Company's capital stock. This arrangement permits the utilization of large generator units at a considerable monetary savings compared with the relatively higher costs of smaller units.

The location of this plant, which will use some 2,500,000 tons of Alabama coal annually, is accessible to vast coal reserves and is within economical transmission distance of the Georgia as well as the Alabama electrical loads. The plant will cost an estimated $140,000,000.

The four boilers for the plant will have a maximum continuous steam output of 6,800,000 pounds per hour at a pressure of 2325 pounds per square inch and a temperature of 1000 degrees Fahrenheit at the superheater outlet. The steam will be reheated to a temperature of 1000 degrees F.

Southern Services, Inc., of Birmingham, Ala., are the consulting engineers for the new installations.

Westinghouse Announces 'Powercasting' Program To Aid Utilities in Planning Future Expansions

POWERCASTING — a new program to help utility management accurately forecast their long-range system needs—has been announced by Westinghouse Electric Corporation.

"Using the Powercasting concept, utilities can find the optimum plan to follow in expanding system generation and transmission to meet increasing loads," said J. K. Dillard, manager, electric utility engineering for the Company. In addition, such diverse and important questions as (1) when to retire old turbines; (2) how much to spend for reliability; (3) what spinning reserve policy to use, can also be answered.

Departing from conventional techniques, the Powercasting program makes use of mathematical models that duplicate all or any portion of the utility system. Using a digital computer, actual day-by-day operation can be simulated over a long period, usually 20 years. All system variables; technical, financial, and human — both predictable and random — are taken into account. Use of operational gaming methods — a combination of system analogues, Monte Carlo techniques and human competition—can provide solutions to problems with so many variables that they can't be described by specific formulas or probability equations.

"When a utility cannot justify using Powercasting for a complete long-range system study, many smaller studies can be made on subjects such as generator shutdown economics and production costing," Mr. Dillard said. These separate studies are more practical for many utilities than the complete system study.

"Early and accurate prediction of future capital expenditures will enable utilities to save substantially on planning, operation, and equipment—by buying the right equipment at the right time, not prematurely or too late," he added.

The first Powercasting study is now under way for a large Eastern utility. Before the study is completed, many different possible expansion patterns will be analyzed and evalu-

(*Continued on page 22*)

ated, and the best one selected. In addition, many other significant questions will be answered as by-products of the study.

New IH Engine Catalog

A 12-PAGE, three-color catalog describing International six-cylinder interchangeable diesel and carbureted engines has been issued by International Harvester Company.

The publication deals with the UC-221 carbureted and UD-236 diesel engines, rated at 75 maximum horsepower, and the UC-263 carbureted and UD-282 diesel units, rated at 95 maximum horsepower.

Each pair of carbureted and diesel engines is interchangeable in power and dimensions. The carbureted engines are similar in construction to their diesel counterparts, varying mainly in head and piston sections. The engines are available with a variety of components and attachments to meet specific application requirements.

The catalog (CR-608-I) is available from International engine distributors and dealers. It also can be had by writing International Harvester Company, 180 North Michigan avenue, Chicago 1, Ill.

This announcement is under no circumstances to be construed as an offer to sell or as a solicitation of an offer to buy any of these securities. The offering is made only by the Prospectus.

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October 28, 1959

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New Machine "Reads" Handwriting: Has A Ten-Word Vocabulary

A SMALL device that reads handwritten words has been built at Bell Telephone Laboratories. It has a ten-word vocabulary — "zero" through "nine," spelled out.

The handwriting reader, about the size of a briefcase, was invented to demonstrate methods which might eventually be applied in machines designed to read a wider variety of material.

"Reading machines" could be valuable in any business or industry where information must now be translated into machine language by punched cards, by tape, and by pressing adding machine or typewriter keys. In the Bell System, reading machines would help in translating toll tickets, in processing bill stubs and orders for change in service, and in other commercial applications. The handwriting reader is an early experimental step in the study of how such machines can be made.

To use the experimental handwriting reader, the writer moves a metal stylus over a special surface just as if he were writing with a pen or pencil. Then, when he touches an "Identify" button with the stylus, a light appears beside the numeral corresponding to the word he has just written.

The device is believed to be the first which actually reads cursive script — connected handwritten material — despite variations in individual style. It also explores machine reading by entire words rather than letter-by-letter. It does this by picking out features of the over-all shape of the word. These include the length of the word, the dotting of "i's" and the number and position of vertically extended letters such as "h" and "g."

Machines are already in use that can read individual letters and numbers, but most require printing in rigid type style and specific size.

Anchor Metals Produces Narrow Base Folder

A TWO-COLOR folder, describing its design and manufacturing of a two-foot square narrow base steel electrical transmission tower has been produced by Anchor Metals of Hurst, Texas.

The folder gives the background and history of the design, drawings, specifications and illustrations of

pplications of the towers now used by utility firms.

e tower, only 24 inches square top to bottom, utilizes welded ruction to insure greater strength conomic field erection. It is de- d to solve transmission problems tility firms who are faced with w, restricted rights-of-way or ents, especially in congested ur- reas.

chor Metals offers complete de- engineering, fabrication and g facilities for electrical trans- on towers and switchyard struc-

e folder may be obtained by g Anchor Metals, P. O. Box Hurst, Texas.

EEI Notes Trend ward All-Electric Homes

970 the Live Better Electrically ram sponsored by Edison Elec- nstitute predicts that at least six on Americans will be living in s serviced totally by electricity.

e trend towards complete elec- ving, according to E. O. George, rman of the EEI Sales Division Vice President, The Detroit Edi- Company, is due largely to the ssful demonstration that electric e heating is efficient and practical climates.

r. George feels the interest in ric heat developed a little like the ken and the egg. During the past de, with the advent of the electric e, washer-dryers, dishwashers, r heaters and dozens of other rically powered appliances for the e, the consumer has learned a deal about the uses of electric er. In order to acquire the elec- miracles that were developed for kitchen, laundry, etc., he had to ernize his electric system and the to acquire full housepower had finite educational aspect. As a re- the homeowner became curious t other ways and means of using electric power he could channel so tlessly into his private dwelling. interest in electric space heating, George said, was a natural de- pment. Actually, he feels, public rest has been the prime incentive leveloping the modern electric ing plant.

electric space heating is so effec- why hasn't it been used more ly until this year? Mr. George there were two very important ons why electric space heating was in developing consumer momen- While electric heat offers great opportunities for construction economies and design improvements, it also requires quality construction—effective insulation, a tight structure and attention to details.

The Live Better Electrically Program along with its sponsoring electric utilities are prominent in campaigning to make sure that the importance of the essential ingredients of a good electric house heating job were recognized by the building industry. Today they feel contractors, architects and other trade allies are alerted to the importance of quality installation.

To insure further satisfactory results from electric heat, Mr. George said, electric utilities have worked with manufacturers of electric heating so that equipment is suitable for all weather requirements. Today dependability of electric equipment is assured.

Today in most areas of the United States, electric utilities report that they can offer strong competition to other heating fuels. In many areas electric utilities are conducting special builder education programs that underline the advantages of correct installation.

In recent months the success of improved methods of insulation and special equipment have resulted in the opening of the first all-electric housing projects in such northerly states as Massachusetts, Connecticut, New Jersey and New York, with similar projects planned for a number of other New England states. The success of electric heat had to be successfully demonstrated in these cold climate states according to Mr. George, before homeowners would feel that total electric living could answer their needs practically and efficiently.

ALCOA Issues Report On Fault and Overload Currents

"OVERLOAD and Fault Current Limitations of Bare Aluminum Conductors"—the second portion of a long-range engineering data project of Aluminum Company of America—has just been published by Alcoa.

Information presented in the report includes description of fault and overload currents, along with graphs showing maximum allowable time for various high value emergency or short circuit currents, in utility transmission or distribution lines. Graphs for both stranded aluminum conductor and A. C. S. R. (Aluminum Conductor, Steel Reinforced) are included.

(*Continued on page* 24)

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Particular value of the new Alcoa publication is to electrical utilities, where it will provide the necessary data to determine fuse selection, or circuit breaker or relay settings, for various conductor sizes and applications.

The 16-page booklet comprises section seven of "Alcoa Aluminum Overhead Conductor Engineering Data." The several sections of the project are being published as research is completed, not in the numerical sequence they will have in the completed project series.

"Overload and Fault Current Limitations of Bare Aluminum Conductors" may be obtained from any Alcoa sales office or from 792 Alcoa Building, Pittsburgh 19, Pa. Also available is the first of the reports, section six, "Current - Temperature Characteristics of Aluminum Conductors."

Cordiner Predicts Electric Industry Output Will Rise To $90 Billion by 1976

RALPH J. CORDINER, chairman of the board of the General Electric Company, predicted recently that the electrical industry would continue its historical pattern of growing faster than the national economy as a whole.

Mr. Cordiner estimated that the industry's output could rise from its present approximately $20 billion a year level to as much as $44 billion by 1966, and to $90 billion by 1976.

"In this context of national growth, General Electric sees both the challenge and the opportunity to increase its contribution from the present four-billion-dollar level to a rate of six billion dollars a year in the early 1960's," he said.

He emphasized that such goals are "realistic, but by no means easy." Competition will be increasingly on an international scale, he said, with foreign competitors having some decided advantages, particularly in terms of wage and material costs.

Mr. Cordiner based his optimism for the future in part on the fact that "in the United States, as elsewhere, the use of elecricity is geared not only to population growth, but also to advances in the level of living."

Citing the nation's extensive investment in scientific research and development as one of the chief accelerators of economic progress, the General Electric chairman said the current stress on innovation has pa
larly encouraging implication
electrical manufacturers and ut

"The United States has co
trated as much research and de
ment into the past ten years as i
formed in all the years previo
that," he pointed out. At General
tric alone, he said, "the compan
invested more than $200 milli
laboratory facilities since World
II, and the volume of research
development work done has
costing more than a quarter-bi
dollars annually in recent years.

"Since there is a time lag bet
the discovery of new knowledge
its widespread practical applica
the world has hardly begun to ex
ence the effect of this vast invest
in science and engineering. It w
a snowball effect, building up in s
and volume as it moves throug
presently known forms of econ
and technical activity. And it s
opportunity for the electrical in
try," he said.

Mr. Cordiner singled out the st
trend toward greater automatio
industry, commerce, the farm, an
home as presenting tremendous
portunities for the electrical indu
He also listed atomic energy dev
ment and the exploration of
space as areas with exciting l
range possibilities for the industr

Mr. Cordiner was in San Franc
in connection with a visit by the c
pany's board of directors to Ge
Electric facilities in California
Arizona. He spoke before a dinne
honor of the board.

World's Largest Aluminum Flexible Connectors Produce

THE largest all-aluminum flex
connectors for an 11,000 ampere,
inch diameter tubular aluminum
have been produced by the Delta-
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pany, Inc. Each unit measures
inches in length and 28 inches ac
the two terminal taps. They are
ing used on the highest ampere g
erator bus installation ever built.

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vides a minimum of current in
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tion, the units were supplied wi
short section of aluminum bus w
ed into the connectors. This allo
a simple tube-to-tube butt weld t
made in the field.

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INDUSTRIAL PROGRESS—(*Continued*)

PSCO to Build New Generating Station

THERN Indiana Public Service Company will a new electric generating station in the Burns or area, Dean H. Mitchell, NIPSCO president, nced recently. The first generating unit to be in- l will have a capacity of 193,000 kilowatts.

e new power station will be built on a 100-acre of land east of Burns Harbor and will utilize only feet of frontage on Lake Michigan. The site was ally acquired by NIPSCO some 30 years ago and ark d for the building of a generating station.

nstruction will begin this month and will be spread a 3-year period. The station must be in operation 963 to meet forecast power demands. The added city will increase the company's total available r supply to more than 1,170,000 kilowatts. When leted the plant will cost approximately $30 million uildings and equipment.

making the announcement, Mr. Mitchell said the any was embarking on the huge expansion pro- to meet the ever-increasing electrical needs of cus- rs in the hundreds of cities and towns served by tility.

e new plant is being engineered and designed by bers of the utility's engineering staff, and the Chi- consulting firm of Sargent and Lundy.

e design will accommodate 5 additional generating , each to be added as future demands require, mak- he ultimate capacity of the plant 1,250,000 kilo- .

Highway Trailer Introduces New Earth-Borer Mechanism

Utility Division of Highway Trailer Comany, uartered in Edgerton, Wisconsin, has introduced power-leveling mechanism, now available on mod- HDA and HDAMS of its earthboring machines.

e announcement states that with dual power-level- ontrol conveniently located at the top, a turn of the anism puts the rack bar and derrick in the exact ion desired. This feature permits rapid leveling e necessary on guard rail and line construction jobs. neered for positioning in any angle up to 90 degrees, echanism is said to be ideal for work in rough, un- terrain.

High-Level Appointments Announced For Babcock & Wilcox Boiler Division

CRAVEN has been elected a vice president of The ock & Wilcox Company by the board of directors, placed in charge of the Boiler division's manufac- g department, according to an announcement by Nielsen, president of the company.

r. Craven, who formerly was manager of the divi- s erection department, will make his headquarters e Stirling avenue offices in Barberton, Ohio. In his position, he succeeds Paul H. Setzler, who has re- d.

the same time, Mr. Nielsen announced that the d of director has elected O. R. Carpenter assistant president, Boiler division manufacturing depart- , reporting to Mr. Craven.

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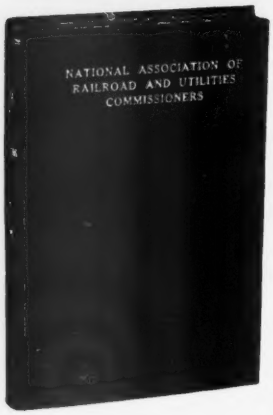

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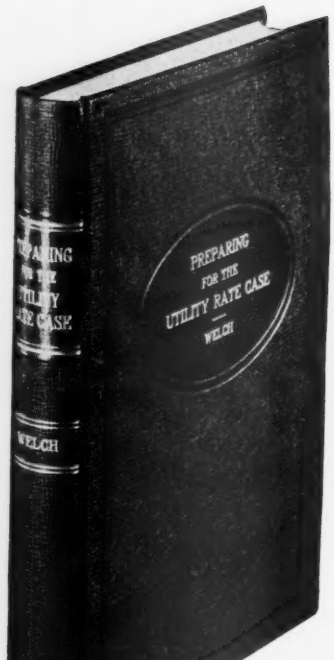

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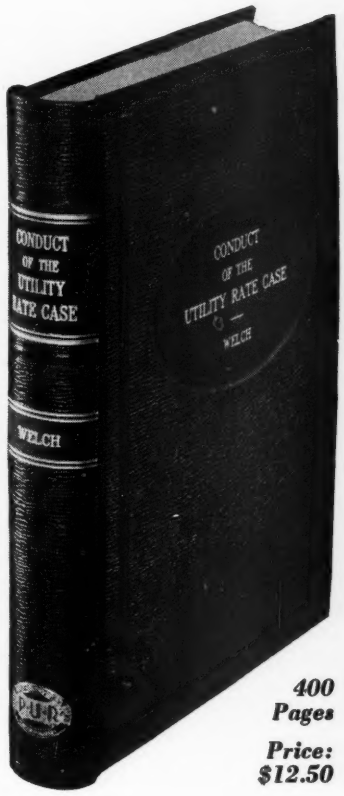

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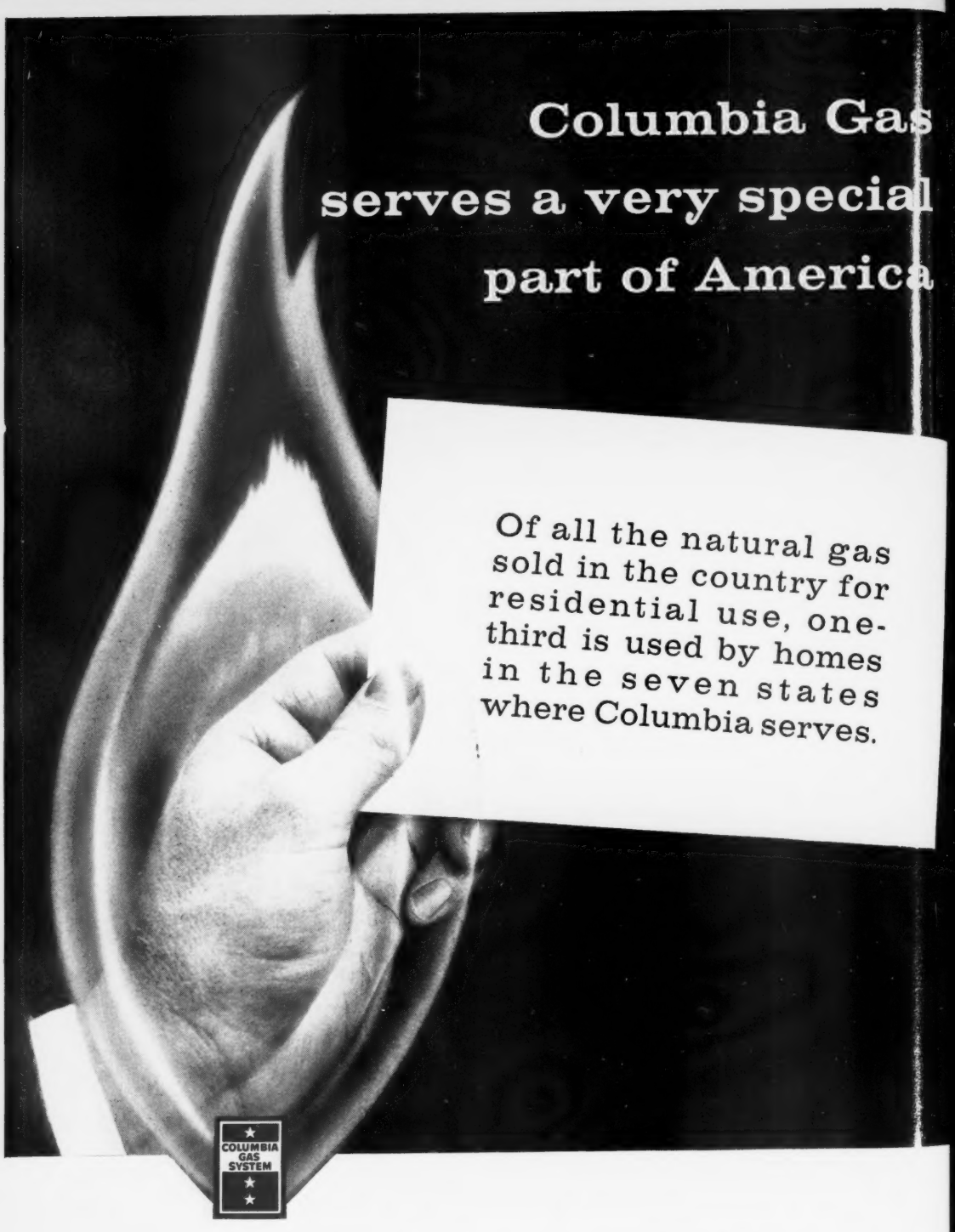
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AVENUE, S.E., CHARLESTON, WEST VIRGINIA. **COLUMBUS GR**
OHIO FUEL GAS COMPANY, 99 NORTH FRONT ST., COLUMBU
PITTSBURGH GROUP: THE MANUFACTURERS LIGHT AND H
PANY, 800 UNION TRUST BLDG., PITTSBURGH 19, PA.